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# EXTRACTS

FROM

# THE RECORDS

OF THE

# BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

Published in the Boston Medical and Surgical Journal.

BY

FITCH EDWARD OLIVER, M.D.

SECRETARY OF THE SOCIETY—1856-9.

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# EXTRACTS FROM THE RECORDS

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# BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

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MAY 26th.—*Ovum Blighted and Retained.* Dr. MINOT exhibited the specimen, which had the appearance of being at about the sixth week, although from the symptoms it would appear to have been carried three months from the time of conception. The patient was a young married lady, of good constitution. She was confined with her first child at the beginning of November last, and has nursed her infant ever since. Four weeks after delivery, she menstruated, and continued to do so for three more periods. She then passed over two periods without the monthly flow, and began to have morning sickness. At about the next monthly period, she was suddenly attacked with flowing, while walking in the street. The discharge continued profuse for a fortnight, when its character changed; it became colorless and offensive, resembling the lochia. It then ceased, and at the same time the sickness also ceased. A vaginal examination gave no evidence of pregnancy, and it was concluded that the patient had aborted. This opinion was confirmed by the next appearance of the catamenia, at their regular time, about May 24th. This morning (26th), she nursed her child, as usual, and had just risen from her bed, when the ovum escaped from the vagina, without pain, and with very little hæmorrhage.

MAY 26th.—*Contraction of the Mitral Valve. Old Pulmonary Apoplexy.* The specimen, shown by Dr. ELLIS, was taken from a woman about 50 years of age, who had been troubled with dyspnœa for some time before her death. The action of the heart was irregular, but no souffle was heard. A short time before death, the lower extremities became œdematous. There was no hæmoptysis.

On dissection, twenty ounces of serum were found in the *left pleural cavity.* In various parts of the *lungs* were recent apoplectic effusions. Continuous with one of these, in the lower lobe of the right lung, and evidently a later stage of the same disease, was a firm, dull-red, granular portion, somewhat resembling pneumonia, in the second stage, but much firmer. A nodule, about two inches in diameter, in the upper lobe of the left lung,

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presented, throughout, the same appearance of age as that just described, and the corresponding pleural surfaces were united by an old, firm band. In the neighborhood of both of these old effusions, blood-vessels were found, filled with coagula, which must have formed some time before death. A large portion of the lower lobe of the left lung was compressed. The *heart* was rather large. In the *left auricle* was quite an old, firm and partially decolorized coagulum, slightly adherent to the lining membrane. The mitral valve was thickened and much contracted, admitting only the fore-finger to the second joint. Upon its free edge were a number of reddish vegetations. The aortic valves were healthy. The *liver* was normal, and the *gall-bladder* filled with dark, tarry bile, in the midst of which were three round, brownish, granular calculi, about half an inch in diameter; a fourth calculus of the same character was impacted in the cystic duct, just outside of the gall-bladder.

The appearances of portions of the lungs were thought interesting, showing, as they did, the changes in apoplectic effusions, so rare, that Dr. J. B. S. Jackson had never before met with them.

June 9th.—*Vesication of the Epithelial Layer of the Cornea. Absence of Sensibility to Irritation.* Dr. Williams reported a case recently under his care, where a patient, a young married woman, of strumous diathesis, had exhibited the phenomena of repeated elevation of a portion of the layer of conjunctiva covering the surface of the cornea. When first seen, the cornea was opaque to such an extent as to abolish vision, and prevent any inspection of the anterior chamber. The patient stated, that just before coming to the city for consultation she had pulled off from the eye what had seemed like a blister. The abraded aspect of the central portion of the cornea confirmed this statement. There was entire absence of sensibility of the cornea, and it could be touched with a probe, needle or finger without causing any pain. The epithelial layer seemed to be reproduced, and became, a second, and afterward a third, time, raised by effusion beneath it. The raised portion was removed with fine scissors, after it had become so far detached from the cornea that its separation was inevitable. Each time, the extent of affected surface was less than before, and, under the use of remedies adapted to improve the general health, together with mild local applications, the cornea recovered its natural firmness, and became gradually clearer, the patient recovering her vision.

June 9th.—*Glandular Hypertrophy of the Breast of* 28 *years Duration.* Dr. Clark showed the specimen and reported the case.

S. F., a married lady, 62 years of age, presented herself at the Mass. General Hospital with a very large, movable tumor of the right breast, of which she gave the following history. Twenty-eight years since, she noticed a small, hard lump in the right breast, which did not alarm her, as it was neither painful nor tender. Soon after this she nursed a child, and from that time she thinks its growth commenced. At first of the size of a common bean, it soon became as large as a hen's egg, and gradually increased till last year, since which time its growth has been very rapid. It now occupied the whole gland, and was at least three times its natural size. The axillary glands were not affected, and her general health was good.

The disease was considered to be *glandular hypertrophy*, and the removal of the tumor was recommended.

The next day it was removed by the usual elliptical incisions. The flaps of skin came readily together, and were secured by sutures and adhesives.

June 12th, the fifth day, erysipelas, in a mild form, made its appearance about the wound, and gradually extended, during the next ten days, over the whole chest, down the back and over the right arm. During the next ten days it gradually subsided and disappeared. The patient was discharged well, July 11th.

There was but little constitutional disturbance during its whole progress.

The treatment consisted of the application of dried flour locally, and the administration of quinine internally, with nourishing diet, ale and cider, *pro re nata.*

The tumor weighed two and a quarter pounds; was lobulated, and involved the whole breast, extending to the axilla. In its centre was found a rounded, calcareous mass, resembling in shape and size the head of the humerus.

The following is Dr. Shaw's statement of the microscopical appearance of the portion examined by him.

"The fragment of tumor appears to be a glandular hypertrophy.

"It is composed of lobules in which the epithelium is well marked, with abundant fibrous tissue, and a quantity of fibro-plastic elements, such as are commonly found in hypertrophied glands. There is no cancer structure apparent under the microscope."

Dr. Ellis gave the following as the result of his examination.

"Fragment of tumor contained much fibrous tissue and many lobules, which looked like masses of small nuclei. In the latter no nucleoli could be distinguished. Numerous small, round or oval free nuclei were, however, seen, containing one or two small nucleoli. Tubuli, lined with epithelium, also were noticed. The disease was evidently glandular hypertrophy."

He adds, "I examined it also with reference to the existence of cysts. On puncturing many parts of the external surface, there exuded a somewhat milky fluid, which had been contained in fissures or flattened cavities of no great extent. The fluid contained numerous cells and free nuclei of an epithelial character. Projecting into the fissures from various parts of their walls, were warty vegetations, some of which had a linear or laminated arrangement. One of the largest of these cavities contained a yellowish fluid, somewhat resembling olive oil. In this, in addition to the epithelium, were found many fat globules, and large spherical corpuscles, apparently formed by the aggregations of the same."

June 9th.—*Mammary Fibro-plastic Tumors.* Cases reported by Dr. Gay.

In connection with the case mentioned by Dr. Clark, Dr. Gay referred to that of Ellen McFaine, 25 years old, who entered the Hospital August 29, 1855, with a similar disease of the right breast.

The patient could refer to nothing, as an assignable cause of the disease, but a pretty severe blow in that region, from her husband, three years before. A temporary suffering followed, and in a very short time the part resumed, apparently, its natural position.

A year ago, for the first time, she noticed a small, movable "bunch," of the size of a hazel nut, situated to the inside of the right nipple, midway between that and the sternum. There was no change in the color of the skin, nor the slightest pain. Its growth had been very slow till within the last three months. Six months after she first perceived it, it was of the

size of a hen's egg. For the last three months it had enlarged very rapidly, the patient saying, that it seemed to her as if she could almost see it grow. For the last eight months, the pain had been exceedingly severe, of a darting, leaping character, and always in one and the same spot, the place of origin of the disease. The color of the skin remained natural till three months ago, when the subcutaneous veins became enlarged and tortuous. Soon a capillary redness of the skin was seen, which slowly increased. At present, there is a large irregular swelling with firm lobes, elastic, not painful on pressure, freely movable and pendulous, inconvenient from its weight and dragging; the circumference about its base being 19½ inches, and from skin to muscle, 4½ inches. The skin was nowhere adherent to the tumor.

Sept. 1st, the tumor was removed, with a large portion of skin, including the nipple. There was no unusual bleeding, but a few small vessels requiring ligatures. Its weight was two pounds, eight ounces. Under the microscope, fibro-plastic material was found in large quantities, together with what might be called glandular hypertrophy. The wound healed kindly, and the patient was discharged well, on the 25th of the same month.

The patient continued very comfortable and without any trouble, till some time in the following December, when she noticed a small growth, near the old cicatrix, of the size of a pea, and perfectly movable. This was very rapid in its growth, much more so than the first, and attended with severe lancinating pains. When she entered the hospital, the second time, May 22d, 1856, the tumor was about twice the size of the former one, with no difference, except in size, in the symptoms, feel, and general appearance. There seemed to be three distinct large lobes, with some adhesion to the skin, in the neighborhood of the cicatrix. Its deep attachments were very loose, so that it was freely moved in every direction. It extended higher up into the axilla, much more so than in September. There was no enlarged axillary or cervical gland. The patient was anxious for an operation.

*May 21th.*—The tumor and cicatrix were removed without the least difficulty. The lips of the wound were not brought together, as it was desirable to have it closed by granulations. On a section of the mass, it presented the same appearances to the eye, exhibited by the first tumor. It weighed 4¼ lbs. Under the microscope, a precisely similar structure was found, namely, fibro-plastic material, and glandular hypertrophy.

This case is interesting, from its rapid recurrence, about three months from the first operation, its rapid and great growth in about five months, and the lancinating, leaping character of the pain. The recurrence and increase were as rapid as is seen in cancerous affections. The same lancinating character of the pain was present as in scirrhous masses.

Another important and interesting case, alluded to by Dr. Gay, was that of Miss Cushing, of Hull, aged 40 years. She had observed an increase in the size and hardness of her left breast, for several months, without any particular reason. At no time, had there been any pain. As it had enlarged very rapidly, the week previous to the operation, she became alarmed, and advised its removal. Accordingly, on the 3d of April, 1855, a large, regular, perfectly movable tumor of the left breast, from four to five inches in diameter, and four inches thick from skin to pectoral muscle, was removed. The skin was perfectly natural in color, softness and mobility. The wound healed in a short time, without any unpleasant symptom. There was a recurrence, and on June 8th, a bosselated, elastic tumor, of

the size of the first, principally involving the cicatrix, was again removed. July 25th, a tumor similar in size and general look, near the last cicatrix, was removed. Sept. 27th, another tumor, adherent at the base, was removed, together with a portion of the muscle. Oct. 12th, another operation was performed, removing every thing down to the intercostal muscle. Oct. 23d, the disease had returned in about the same spot, was strongly adherent, and as large as an orange. Another operation was not advised. There was no glandular enlargement. During the whole period of the progress of the disease, the patient had been almost entirely free from pain.

Under the microscope, the fibro-plastic material always preponderated. There was nothing like cancer cell.

The patient lingered till the 8th of February, 1856, when she died. At the time of her death, the tumor was enormous, being, in circumference, as large as a large wash-bowl, and five inches or more in thickness, reaching up to the patient's chin. From the attending physician's account, it must have weighed ten or fifteen pounds.

Here is the recurrence of a disease, and a rapidity of progress, unquestionably much greater, in the same period of time, than in any form of cancerous growth.

At each time the operation was urged by the patient. In ten months from the first operation, the disease terminated fatally—after five separate recurrences, and four operations at intervals of from one to two months.

Another case of fibro-plastic disease was referred to by Dr. Gay, where there were at least three different operations, then a further recurrence, which was fatal, within a year.

Also, still another case, at present of about a year's standing, in which a recurrence was noticed four or five months after an operation, and now any attempt at removal is perfectly hopeless.

Dr. Bigelow remarked upon the connection between sero-cystic disease which seems to be comparatively common abroad, though not so here, glandular hypertrophy, and the form of disease presented in the case of Dr. Clark. The sero-cystic disease consisting of serous cysts, which contain more or less hypertrophied glandular tissue hanging off into their interior and perhaps at last filling their cavities, causing distension of the breast, rupture of the surface, and ulceration; the glandular hypertrophy, in its common form, presenting rounded, hard tumors, movable and generally not recurrent; and being, together with the present form of the disease, equally characterized under the microscope, by the lobulated and somewhat irregular glandular outline distinctive of hypertrophied gland. But the form of the disease which is now shown to the Society he believed to be of comparatively rare occurrence. It is the second case reported here, and the third specimen which has been shown to the Society. The first specimen was removed at the Hospital by Dr. Hayward, some years since, and was then exhibited to the Society by Dr. Bigelow. It again recurred, and the patient entered the Hospital about two years after, when it was again removed by Dr. Warren. It is this recurrence which characterizes this variety of glandular hypertrophy, and which, indeed, is not its only affinity to malignant or semi-malignant growths; for while it presents, microscopically, the common appearance of hypertrophied glandular tissue, it also presents a very large proportion of simple cellular and nucleated tissue, destitute of glandular structure; this fibro-plastic tissue apparently increasing with recurrence of the growth, and, at last, greatly predominating over the glandular structure. The gross appearance of this disease differs from those previously described,

in being, to all appearance, a simultaneous and uniform enlargement and transformation of the whole breast, instead of a cystic disease with internal growths, or a separate mass of hypertrophy, as in the tumors before alluded to.

In reply to an inquiry of Dr. Gay, how Dr. B. explained the recurrence of the disease after the complete removal of the breast, Dr. B. remarked, that when the very considerable size of these breasts, and the soft, and, in some places, gelatiniform character of the tissue is considered, together with its adherence to surrounding structures, the great difficulty of completely removing every portion of the diseased tissue is apparent. Dr. B. considered that in this case, as in the frequently occurring cases of soft tumors of a cellular structure elsewhere, not surrounded by a distinct and firm outline, small portions will inevitably be left in the dissection, in spite of every precaution; especially when it is impracticable, as here, to remove the adjoining healthy tissue, which has been exposed to infiltration by the growth. Dr. B. gave it as his impression, that the softer this tissue, the greater is its tendency to recur.

Dr. Clark had seen two cases of the glandular hypertrophy, before described, within the past year.

In referring to the case reported by Dr. Gay, Dr. Abbott inquired as to the expediency of operating, when there is such liability to recurrence, this evidently having been instanced in the case above alluded to.

Dr. Gay stated in reply, that he operated in the case referred to, at the urgent request of the patient.

Dr. Bigelow was of the opinion that the patient should have the benefit of the chance in such cases, especially as rapidly-increasing disease is the patient's only alternative; and as there is yet some doubt about the character of this disease, which is, as far as is now known, purely local.

Dr. Clark remarked that he had seen several cases of glandular hypertrophy where no recurrence took place, and thought that of Dr. Gay exceptional.

With regard to the use of words in such cases, Dr. Bigelow remarked that he did not call a tissue malignant so long as it presented glandular structure.

Dr. Gay stated that Dr. Ellis did not find any trace of glandular structure in the specimen from the case reported by him, which was after repeated recurrence and removal.

Jesse Ru.—*Complained Disease of the Stomach. Absence of Vomiting and of other Gastric Symptoms.*—Dr. Clark reported the case.

F. R., æt. 37, had for many years been troubled with dyspeptic symptoms, and some tenderness of the left hypochondrium, when lying on the left side. For the years since he were in spent the summer in Vermont, and while there was induced to use the "Vermont houses." His health very much improved during the summer, and this was ascribed to the exercise he had taken. In the summer of 1850 he visited Saratoga, and soon after beginning to drink the water, his old symptoms returned. He remained quite at the houses which he occupied till December, but without relief. It occurred that he might have a tied accommodation in the large intestine, producing the pain and tenderness he complained of. After the use of laxatives and clysters for two or three weeks, by which the constipation was soon relieved without essential relief, I examined the abdomen, and found a tenderness in the left hypochondrium quite acute to the eye.

A hard, smooth, slightly movable mass was felt extending to near the median line and to a little below the umbilicus, quite sharply defined to the left, but more indefinite to the right, proceeding in fact from the position of the spleen, lying rather transversely, and not shooting down towards the groin as an enlarged spleen usually does. At this time, however, he attended to his daily business, though not without inconvenience and a gradual loss of strength. The bowels were kept free by an enema night and morning, and the discharges were every way satisfactory. No urgent symptoms occurred until the 25th of March, when he found he could not discharge his fæces, on account, as he supposed, of a prolapsus of the rectum, which had somewhat annoyed him for two or three days previously. On examination, I found the passage of the finger strongly opposed, and producing exquisite pain. The rectum was distended with an indurated fæcal mass, which was gradually broken down and extracted as fast as his intense agony would admit. The irritation and effort brought on severe pain, with great tenderness in the region of the tumor, like peritonitis, preventing motion or a full inspiration. Leeches were applied, and other antiphlogistics were used, until, in about three weeks, he was again able to sit up.

From this time he was very gradually reduced by want of food, and pain. His food was chiefly liquid, and never gave him pain; his tongue was clean; the bowels were regularly evacuated by enemata, and the fæces were healthy, and in no wise peculiar, except in being attenuated to the size of the little finger. The tumor did not increase in size, but became oftentimes very tender to the touch; about four weeks before death he had acute pain near left kidney, lasting three or four days; three weeks before death he had fœtid eructations, and about the same time there came on a well-marked pulsation, of a fluctuating character, in the tumor (without any thrill); also œdema of the feet, and general weakness, so that evacuations were rare on account of the effort necessary to induce them. Death took place, from gradual exhaustion, April 30, 1856.

The diagnosis of abdominal tumors is always difficult. In this case disease of the stomach was rendered doubtful by the absence of pain after food, absence of vomiting, natural appetite and well-digested fæces; disease of the liver, by the absence of jaundice, indigestion or ascites; disease of the spleen, by the position of the tumor and the severe constitutional symptoms; of the pancreas, by the degree of mobility in the mass; of the kidneys, by the absence of all difficulty in the urinary function. It was concluded that the mass was made up by an agglutination of several organs, involving and obstructing the large intestine. The disease was supposed to be of a malignant nature; but the organ primarily affected, uncertain.

The subsequent examination showed that vomiting must have been impossible, and how small a portion of the stomach was required to carry on digestion; the contents of the lower bowels being as natural as in health.

*Autopsy.* The body was much emaciated; the skin not sallow. The abdominal contents were found adherent to the left of the median line from the seventh rib to the umbilicus, corresponding to the edge of the left extremity of the liver, which had been pushed into this position by the diseased mass; the adhesion involved also the stomach and arch of the colon near its descending portion. On separating the mass from the diaphragm, a large sac was found in the concavity, behind the tumor and to the left of the liver, filled with pus, in which the *spleen* floated, quite healthy, though with a sodden aspect; the left portion of the *colon* passed tortuously through the mass, firmly bound, and narrowly contracted, with a considerable amount

of proper fæces above the stricture; no portion of it was inflamed, nor perforated. The *pancreas* was involved in the mass, but quite healthy. The surface of the diseased mass was covered with irregular nodules, but no distinct limits of an entire stomach could be made out. When laid open, the interior about the pylorus, and one or two inches from it, was healthy; the cardiac portion also, to a line passing from the right margin of the œsophageal opening, around the organ, was healthy; the intervening portion, or about one half of the viscus, presented a dark-olive, ragged, fringe-like aspect, without any trace of membranous tissue, so that the two extremities of the stomach were only held together by the agglutination of the neighboring organs, thus maintaining the cavity in a state to retain its contents, except at one point, superiorly and posteriorly, where a perforation had given origin to peritoneal inflammation, resulting in the sac of pus above mentioned. The walls of the cavity presented a mass of encephaloid disease from half an inch to an inch in thickness. The *mesenteric* and *lumbar glands* were in a similar condition. The *liver* was pale, somewhat fatty, containing very thin, pale blood, like currant juice; the gall-bladder contained a gall-stone. Fat in *omentum* and elsewhere rather abundant, and of a deep yellow color. The *heart* and *lungs* were healthy; a little straw-colored fluid existed in the *left pleural cavity.*

June 9th.—*Cancer of the Liver and Stomach.* Dr. Ellis remarked that the following case of gastric disease, in which incessant vomiting was so marked a feature, was in striking contrast with that reported by Dr. Gould, in which, it will be noted, there was entire absence of this distressing symptom.

The specimens shown by Dr. Ellis were taken from a woman 60 years of age, who, for more than a year, had shown symptoms of gastric derangement, and, for several months before her death, had vomited almost everything taken. During the last few weeks, there was well-marked jaundice and great pain in the right hypochondrium. The autopsy was necessarily made in great haste, by Dr. Thompson, the attending physician.

The *liver* contained many cancerous masses, some of them of large size.

The *stomach* was healthy, with the exception of the last two inches of the pyloric portion. This part was the seat of cancer, the walls being here four or five lines in thickness, the different coats being blended together, and the inner surface ulcerated.

No details are given, as the case derives its chief interest from the seat of the disease in the stomach. In the case reported by Dr. Gould, although a large portion of the stomach was destroyed, the orifices were free and there had been no vomiting. In the other case, the disease was quite limited, but the pylorus was involved, and the vomiting had been incessant.

June 9th.—*Transformed Bursal Tumor of the Knee.* Dr. Gay read the case.

The patient, J. D., an Irishman, aged 55, was a slater and plasterer, and first noticed something unusual about the knee more than thirty years ago. In pursuing his occupation as a slater, he was in the habit of using a ladder placed upon the roof, upon the rounds of which his knees frequently rested. To this circumstance the patient attributes the cause of his trouble, the original seat of which was upon the patella, the seat of "housemaid's knee." For many years the swelling continued quite small, and was free from pain and soreness. About two years after its first appearance, he con-

fined himself exclusively to his business as a plasterer. The swelling remained stationary till about seven years ago, since which time it has gradually enlarged, till within three years. Its general character was round and smooth, without any irregularities, pain, or tenderness on pressure; and although inconvenient, it never caused the patient to lose a day's work, till May 9th, 1856. It has been of its present size about three years. No pain has been felt in it till within a year, and that not of a distinctive character. The general health of the patient has been good. He had never received a blow upon the part, nor injury sufficient to confine him to the bed or house. Since he has felt the pain, he can fix the first appearance of any irregularity in the swelling, this being previously uniformly soft, yielding and fluctuating. These prominences became well marked and defined, and were always harder to the touch than any other part. There has been no increase of growth for the last six months. No treatment has been attempted during its progress. Its size is at present that of a child's head. The maximum circumference around the tumor and joint being 20 inches.

| | | |
|---|---|---|
| That of other knee at the same point, | 13¼ | " |
| Circumference of the tumor alone, | 16 | " |
| " " thigh just above, | 14 | " |
| " " leg below, | 12 | " |
| Length of tumor from above downw'd, | 8 | " |
| Depth of " from patella to skin, | 4 | " |

On the 9th of May, the patient accidentally rubbed the tumor against a board, since which he has been at home. There being some soreness in the part, a poultice was applied, with relief.

Dr. Gay first saw the patient, May 14th. The tumor at this time presented a large irregular swelling, with its base situated upon, and beyond, the patella, overlapping, both above and below, the leg and thigh, with its lateral borders extending beyond the usual outline of the limb. It was of an irregular rounded form, being flattened from before backwards, the irregularities being produced by tuberosities, rising slightly above the general smooth surface of the tumor, elastic, yielding to the touch, and giving the sensation of something firmer than the rest of the mass, which seemed evidently fluctuating. These tuberosities, of the size of a pigeon's egg, were situated, one along the superior border, and two along the inferior internal border, with a small nipple-like prominence near the last. At one point near the upper border, was a small spot, about one inch in diameter, where the skin was evidently very thin, and almost ready to burst.

The motions of the joint were good, and without pain. There was some induration at the base of the swelling, and slight inflammatory redness of the skin.

The swelling undoubtedly commenced in the bursa, between the patella and skin, and was produced by continued friction and irritation of the part, as in "housemaid's knee."

No cause can be assigned for the prominences which appeared about a year ago, nor can any supposition be made of the actual alteration, if any,

in the tumor itself. Although the prominences were somewhat suspicious, as suggesting encephaloid degeneration, the tumor was considered, on the whole, innocent in its nature, and an operation was advised.

On the 15th, an incision was made near the upper border, and more than a pint of thick, chocolate-colored substance was pressed out, the consistence of which was somewhat less than that of soft putty, together with several fibrinous-looking masses of the size of a mulberry, resembling the detached portions from the interior of an aneurism. The finger being now introduced into the opening, the above-mentioned prominences of the skin were felt to be produced by roughed masses from the inner of the upper wall of the cyst, hanging down into the cavity. An oblique elliptical incision was then made from above downwards, 6 inches long by 2½ wide, sufficient to include those at the superior and inferior border; and the skin, with the subjacent parts, was removed. The interior was then exposed, which much resembled an aneurism, with partially detached layers of fibrine. The hæmorrhage was not sufficient to require the ligature of a single vessel. After sponging the parts, a number of small tumors, varying in size from a pea to a grape, and of a brownish-yellow color, were found on the wall of the cyst, to the inside of the patella and its ligament. There were none on the outside, of regular shape, there being only fragile, soft fibrinous layers, easily broken down. Near the inferior border, were strong fibrous intersecting bands of different sizes, the largest resembling the ligament connecting the head of the femur with the acetabulum, and at first thought to be a part of the *ligamentum patellæ*, but the latter was found entire beneath it. The tumors were pretty firmly adherent at their base, elastic and yielding to the touch, their interior presenting, on incision, different appearances; in some of the smaller ones, a central dark coagulum, with concentric yellow, tan, and dark-colored layers; in others, almost a regular *corpus luteum*; in another, which was an inch and a half long and an inch wide previous to the section, a soft, dark-russet substance, of the consistency of putty; in the largest ones, removed with the skin, a kidney-like substance was seen, perfectly dry on scraping with a knife, shining, elastic, and very easily broken down with the nail, being two inches long by an inch and a quarter wide. These tumors were all pretty firmly adherent at their base, and without the slightest feeling on hard pressure. The walls of the cyst, with the superjacent cellular tissue, were much thickened and indurated, as in old cases of hæmatocele of the *tunica vaginalis*.

From the history, seat, progress, and long-continued softness of the tumor, there was every reason to believe that it commenced as a bursal tumor. According to the patient's report, it was impossible to fix upon the time when the change or transformation took place. The first decided notice of any difference in the feel of the tumor, occurred a year ago. This may be about the extent of duration of the larger ones. Of the smaller, no information could be gained; as, in those of equal size, some had a central, dark coagulum, as if not of long standing, others had the precise appearance and feel, internally and externally, of the larger ones.

From the gross appearances, it was thought to be an alteration of the elements of the blood, and a favorable prognosis was pronounced.

The microscope revealed nothing in the tumors and putty-like substance, but an amorphous mass, without any definite structure or cell. In the bands of firmer tissue, the fibrous element preponderated.

Cold-water dressing was used for two days, and since that time, a ground-flaxseed poultice. Since the operation, every thing has gone on as well as

could be wished—there having been no pain or inflammation, and the motions of the joint entire and free. Healthy granulations gradually commenced, the several tumors came away in layers, daily, and cicatrization rapidly advanced, the wound having a clean, healthy, granulating surface. This, at the present date (July 31), has entirely healed, the cicatrix being two inches in length by half an inch in width.

June 9th.—*Cirrhosis of the Liver.* Dr. Gould reported the case.

M. W., widow, æt. 31. Irish. Entered the Hospital Jan. 15, 1856. Her youngest child was born eight years since, after which the catamenia never re-appeared; but she had had frequent attacks of epistaxis, and been subjected to hard labor and privations. Two months since she perceived swelling in the abdomen, which had continued to increase, causing dyspnœa; the abdomen measured 43 inches in circumference; the legs were sometimes œdematous. The urine had been decreasing to about ℥xii. daily; density, 1.023; acid, with a moderate deposit of oxalate of lime and epithelium scales; no excess of urea; no albumen. Abdomen resonant above, dull and fluctuating below; some tenderness at the epigastrium and about the umbilicus. The os uteri appeared like a small fissure buried at the arched termination of the vagina, no cervix being apparent. The uterine sound was readily introduced to the usual extent. From Feb. 12 to May 10, she was tapped five times, discharging from twenty to thirty pints of fluid each time. No tumor could be made out after tapping. She was treated with alteratives, diuretics, cathartics and tonics, some administered externally and some internally, without any marked increase of urine or diminution of other symptoms. No moisture of the skin was detected except once after opium. May 15th she got narcotized by mistake, and began to break down; mind at first a little wandering, succeeded by clamorousness, imbecility, stupor, and death on the 4th of June.

*Autopsy.—Brain* softer than natural, probably cadaveric; old adhesions of the *left pleura;* a cretaceous mass near the apex of the *right lung*, and two more in the lower lobe of the left. The *heart* very flaccid, weight ℥vi. The *peritoneal cavity* contained 21 pints of yellow, frothy serum; the *great omentum* adherent at each side to the parietes. *Liver* very small, reddish-yellow, rather thin, quite firm, but pliant; on the surface, especially along its free edge, there were numerous slightly elevated nodules, from one to three lines in diameter; the cut surface showed excess of the fibrous tissue, interspersed with nodules; weight ℥xxv. Under the microscope, free fat, in nodules; hepatic cells very granular, the intervening tissue having an amorphous, fibrous appearance, and containing no hepatic cells. *Gall-bladder* contained dark, viscid bile. *Kidneys* discolored, but natural; weight ℥ivss. *Genito-urinary organs* natural.

The history of this case would lead to the supposition that the ascites originated in the uterine system. This proved not to be the case; but it arose from cirrhosis of the liver, and this affection we think to be oftener the cause of abdominal dropsy than any thing else, where no tumor can be detected after tapping. A similar case occurred in a male, at the Hospital, which terminated fatally.

June 9th.—*Excision of the Elbow-joint.* Dr. H. J. Bigelow related two cases of this operation, as showing the result on the subsequent health of the patient. The patients were both males; in both there was caries of the parts, and in both the whole joint was excised; the humerus having been

[illegible] of bones the [illegible] and the bones of the fore-arm an inch or more below the joint. In the first case the patient recovered so far as concerned the arm, but died about the [illegible] after operation. The other patient was discharged in the time of the operation, and has not been since seen.

Dr. Bigelow remarked in this connection, that where cases occur, this circumstance [illegible] a case of amputation [illegible] in the health of the patient after removal of the diseased bone by operation.

Dr. Parkman asked if Dr. Bigelow had had an opportunity of observing the ultimate condition of the limb after the operation.

Dr. Bigelow replied that he had always learned to arise to a considerable degree when bone splinters had been removed in cases of fracture, but thought these were to be distinguished from cases of acute necrosis, in cases where a [illegible] is usually not established.

Dr. Jackson reported a case which he saw in Edinburgh. The patient had been operated upon by Mr. Syme several years before. The muscles of the leg were very perfect, the patient being able to stand upon the sole, with a limb the same length as with the other leg. Fragments of bone which were exposed at the time of the operation, were also removed. This Dr. J. stated was a case of [illegible].

Dr. Jackson also exhibited a case of compound and comminuted fracture of the humerus operated upon by Dr. Walker, several years since, in Belgium. See *Lancet*, No. 151, in which two inches of the upper end of this bone were removed, the patient recovering with a considerable good arm.

Dr. Bigelow thought the result justify resection in cases arising from accident.

*Case VII.—Tumor Femoris.* Dr. Townsend reported the case. Dr. T. was called in September, May 1841, to see a very corpulent female in a neighboring town, 50 years of age, with symptoms of strangulated hernia. The patient had had a passage from the bowels for four days, and there had been considerable abdominal vomiting. She had had tumor, inside for 12 years, for which she had worn a truss.

Upon examination, a tumor was found three inches in diameter situated below the tuberosity of the ischium of the left side, the left hamstring muscle, and it was above the tuberosity, behind the femoral bone, the two being divided by a long-shaped tumor. The upper tumor was distended in a cross which she had worn with. At the upper tumor, pushing it the intestine could be distinctly heard upon pressure. Either was distinguished, but without effect.

Dr. T. then proceeded to the operation, by making an incision three inches in length over the upper tumor, through the skin and cellular membrane to the peritoneum, at point of being then made through the muscle sufficiently high to avoid the ligament, through which the intestine had a portion of the omentum protruded.

Passing the finger up to the band, a hernia knife was passed on its side beneath the band, when, the edge of the instrument being turned up, the stricture was divided. The existence of adhesions within the sac prevented the return of the intestine, but complete relief to all the symptoms followed, and the patient perfectly recovered.

JUNE 23d.—*Purpura Hemorrhagica.* Dr. COALE related the case. The patient, I. D., aged 12, had been a stout, hearty girl, but of late had been paler than usual, the pallor extending to the mucous membrane of the mouth, &c. There was no other departure from general good health, except a weariness after exertion, showing muscular debility. Unaccompanied by any general disturbance, purpura hemorrhagica appeared on the ankles in fine puncta. In three days it had spread as high as the knees, becoming confluent at the ankles, and the spots generally being a line in diameter. On the fifth day, the disease exhibited itself on the thighs and arms; still the general health continued unaffected, with the exception of some degree of debility. The exhibition of elixir of vitriol was commenced at this time, and on the seventh day (two days after) the disease stopped. On the ninth day, the muriate of iron was substituted. On the fourteenth, the effects had nearly passed away, and on the nineteenth, entirely. The treatment was omitted a week after, when there was a slight return of the disease.

JUNE 23d.—*Supposed Poisoning by Copper.* Dr. SALTER reported the case.

J. B., a weaver, aged 27; married; of good constitution; strictly temperate in all his habits; had enjoyed excellent health, from early childhood up to the middle of March, 1856. He arrived in Boston from England, November, 1855. Not finding employment in his particular occupation, he engaged himself to a coppersmith. As he was not particularly skilled in any department, he acted in the capacity of a general hand—the man of all work. It was about the middle of March that he first remarked any deviation from his uniformly good state of health. For some time previous to this period, he had occasionally noticed a peculiar sweetish taste in his mouth, and a slight constriction in the fauces, attended by a slight sense of nausea. The symptoms of which he complained were a peculiar sense of weight, weakness and oppression in the epigastric region, a disagreeable and nauseous taste in his mouth, diminution of his usual appetite, which at length entirely failed; constipation, which ultimately became very obstinate; general languor and prostration. These symptoms were soon followed by cardialgia, morbid sensibility of the epigastric and hypochondriac regions, epigastric sinking, a disposition to remove some offending substance from his stomach—unaccompanied by nausea—for the ejection of which, he would frequently irritate the fauces with his finger; and epigastric palpitation. These were soon followed by neuralgic pains in various parts of his body, stomach, intestines, hips and lower extremities, chest, head and superior extremities—the paroxysms varying in intensity and duration, more persistent in head and hips than elsewhere; great weakness of the hips and lower extremities; giddiness; numbness in different parts of both the superior and inferior extremities, which, under certain circumstances, was attended by intense pricking pains in various parts of the body; a peculiar sensation of the right hand and fore-arm, consisting in a sense of constriction of the different parts, and of great increase of size—they seeming to him,

at times, to be larger than his whole body, and their motions not fully under the control of his will; also, a difficulty in passing his urine—consisting in a painful inability, requiring considerable time and effort to relieve the bladder. He had also shortness of breath, occasional paroxysms of coughing, unattended by any physical signs indicative of disease of the lungs; great wakefulness; profuse night sweats; rapid emaciation, and great depression of spirits. When first seen, on the 17th of May last, the patient presented no striking indication of indisposition except a degree of pallidness and thinness of the face; but he detailed, in a very intelligent manner, the various symptoms already related. His tongue was coated with a light-brown or cream-colored fur, except the edges and tip, which were clean, and of a pale-red color—the whole tongue being moist. The gums were lax and spongy for about 3-16 of an inch from the teeth, through nearly their whole extent, and for the same extent their edges were withdrawn from the teeth; he had occasionally spit blood from his mouth, especially in the morning, on rising from bed. The pupils of his eyes were preternaturally dilated, and exposure to a strong light did not perceptibly lessen the dilatation. His pulse ranged from fifty-eight to sixty-two beats in frequency, was rather slow, moderately full and regular, but weak. This man continued at his employment nearly all the time, until this period.

The pathological conditions of this case, in many respects, resembled very closely those of a form of that protean disease called dyspepsia; but the differences were very striking and peculiar, and, together with the knowledge of the fact of the patient's exposure to the dust and fumes arising from the processes of breaking up and repairing old, and the soldering, polishing and tinning of new copper, suggested to my mind the probability of its being a factitious case of disease. The man had been peculiarly exposed to the noxious influences above referred to, and may have been possessed of a constitution of more than ordinary susceptibility.

The treatment consisted in directing the patient, first of all, to abandon his employment. The remedies which appeared the most appropriate for his relief, comprised opium, conium maculatum, phosphate of iron, strychnia, alcohol, and compound extract of colocynth—adapted and administered so as to meet the exigences and answer the general indications of his case. Under this course of treatment the patient has greatly improved, and is rapidly regaining his usual health and vigor.

Dr. Bethune asked if lead were not largely used in copper establishments; to which Dr. Salter replied that such was the fact.

Dr. S. further remarked, that after he had drawn up the account of the case, he noticed a peculiarity of the gums which had before escaped notice, on account of the spongy turgescence which existed. The peculiarity referred to, consisted in a striking contrast of color between the edge and other portions of the gums. The edge was retracted or drawn from its natural contact with the teeth, in such a way as to give the appearance of a very narrow bevelled surface throughout their whole extent. It was on this bevelled surface that the color was most striking and intense—*a delicate shade of red purple.* He was unable to determine what relation this had to the case. It might be a consequence of the previous ill condition of the gums, or connected with the patient's general condition, as being affected by the action of copper. But this we leave to be determined by future observations.

In "*Braithwaite's Retrospect*," Part 30, page 303, is a notice of several cases of poisoning by copper, reported by Dr. Corrigan in the "*Dublin*

*Hospital Gazette*," many of the symptoms in which bear a striking resemblance to those in the above case. There existed the colicky pains, loss of muscular strength, emaciation, and cough without the physical signs to account for it. In one respect there was a marked resemblance in all the cases, this being a *peculiar condition of the gums.* Dr. Corrigan remarks, "that the color of the gums was quite distinct from that produced by lead;" and he further states that he considers "the retraction of the gums with a purple edge as the *peculiar characteristic sign*" of poisoning by copper, while a "blue edge" seems to distinguish cases of poisoning by lead.

July 14th.—*Aneurism of the Ascending Aorta, opening into the Pulmonary Artery; Hypertrophy of the Heart; Peculiar Disease of the Liver; General Dropsy; Death; Autopsy.* Dr. Ellis showed the specimens, and reported the case.

The patient, a carpenter, 48 years of age, had formerly been a sailor. For five or six years he had been more or less subject to dyspnœa on exertion, and at last became generally dropsical. After being under the care of many physicians, one of whom, a homœopathist, purged him with elaterium, he was seen by Dr. E. H. Clarke, a fortnight before his death, and was attended by him until that took place. He had a regular pulse of about 80, and a fair appetite. On examination of the heart, the dulness on percussion was much more extensive than usual; the impulse was feeble, but distinct. A loud bellows murmur, with the first sound, and almost masking the second, was heard in every part of the chest. The urine was never tested, but frequently deposited a thick white sediment. The ascites being very marked, he was tapped eight days before his death, and two gallons of serum were drawn off with relief to the pericardial distress and feeling of tightness about the abdomen. On the 30th of June, he suddenly expired, while sitting up fanning himself. Several years before his death, he received a violent blow in the right hypochondrium, followed by severe symptoms.

At the examination the following appearances were noticed.

*Autopsy.*—From three to four pints of serum were found in the left *pleural cavity.* The surface was united at several points by old elongated bands. The *right lung* was quite extensively adherent, but considerable serum had collected between the old bands. Both lobes of the *left lung* were very small and rounded. The upper two-thirds of the upper lobe, crepitant; the remainder of the lung, dark and fleshy from compression. The *right lung* was crepitant throughout. The *pericardium* contained five or six ounces of serum. The *heart* was much enlarged, and rounder than usual. The walls of both *ventricles* were much thickened, and there was also some thickening of the free edges of the *aortic valves.* There was also discovered a marked aneurismal dilatation of the lower two inches of the *aorta,* two inches in diameter, involving rather more than one half the circumference of the vessel, and that portion in contact with the pulmonary artery. The small coagula seen within it, were all recent. The lining membrane was wrinkled, and somewhat ætheromatous. Between it and the upper part of the pulmonary artery there was found an opening half an inch in length, with smooth, rounded edges, and presenting none of the appearances of a recent rupture. The contiguous portion of the pulmonary artery was in one part vascular, had lost some of its smoothness, and was separated from the remainder of the vessel by two well defined lines, evidently formed by the projection of the aneurism into the artery.

In the *peritoneal cavity* was a large quantity of purulent serum and lymph. The *intestines* were glued together and coated externally with purulent lymph, in the form of small granulations, so soft and recent that they were scraped off with the greatest ease. Quite an extensive old false membrane covered the upper surface of the right lobe of the *liver*. Near, and involving the right edge, were a number of large nodules, with firm, yellow, depressed portions intervening. In the centre of some of the nodules, dense fibrous tissue was also found. The whole had a decidedly cicatrized look, and was thought interesting in connection with the blow, received several years before, when the liver was probably fractured. The substance of the organ generally presented a somewhat granular appearance, similar to that of the kidney in Bright's disease.

The *spleen* and *kidneys* were unusually firm, but, in other respects, normal.

Dr. Jackson remarked that he remembered the report of a case that occurred in England, in which the patient died of a rupture into the pericardium, an opening also being found into the pulmonary artery; there being evidence that this had existed for a considerable time, also of the period when it probably occurred.

Dr. J. also alluded to a specimen in the Society's Cabinet, of rupture into the pericardium, where perforation was about taking place into the pulmonary artery, and which must soon have occurred.

In reply to Dr. Ware, Dr. Jackson stated that in the former case there was irregularity of the circulation, with other marked symptoms.

July 14th.—*Convulsions after Vaccination.* Dr. Morland referred to a case of this nature reported by him at a recent meeting of the Society (*Records*, Vol. II., p. 338), and read the following communication from Dr. Salisbury, of Brookline, Mass.:—

"*Brookline, June* 21st, 1856.—Dear Sir,—Having recently had two cases of vaccinia, the circumstances attending which, have a tendency to confirm the conclusions at which you arrived in your *resumé* of the case reported in the last number of the Medical and Surgical Journal, I take the liberty to enclose some account of them.

"May 18th, 1856, I vaccinated a child, six years of age. At the time of vaccinating, I noticed that the conjunctivæ were suffused, and that there was some discharge from the nostrils, which was attributed to coryza, there being no measles in town at the time. On the 20th of May, I was requested to visit the child, and found a full and perfect eruption of measles, which was said to have appeared on the previous day.

"There were no unpleasant symptoms; the case not differing in any respect from a mild and fully developed case of measles.

"On the eighth day, the vaccine vesicles were filled and perfect in their character, not being at all modified in their appearance.

"An older child, in the same family, who contracted the disease from the one described, had the symptoms more severely.

"On the 11th of June, 1856, I vaccinated a child, five years old, who had scarlatina last winter, and convulsions at a previous time. On the 17th of June, I was asked to see it, and found that it had convulsions. The vaccine vesicles were rather more developed than we usually find them on the seventh day. The convulsions were not severe, and did not recur, the child being upon its feet the next day.

"These cases seem to corroborate your conclusions that the convulsions

in your case were due to the vaccinia and not to its complication with the measles."

Dr. M. added, that in the case reported by him, there was not only complication of rubeola with vaccinia, but also *repercussion of the eruption;* the latter accident having been occasionally followed by convulsions, a doubt arose as to its possible agency; but the fact that the first attack was on the eighth day from the vaccination, seemed to indicate the latter as the cause, by proximity, as it were, to the height of the induced disease. This view is, moreover, supported by analogous phenomena observed in connection with *variola.* In Dr. Salisbury's last patient, it will be observed, there had been convulsions previously. This, in connection with the other observation by Dr. S., is all the more confirmatory of the action of vaccinia as a cause. In Dr. M.'s patient, there never had been convulsions before, and the unusual complication gave interest to the question of their etiology.

JULY 14th.—*Colloid Disease of the Stomach; absence of Vomiting; Ascites.* Dr. CLARK reported the case.

The patient, J. S., was a machinist, aged 35 years. He had had dyspepsia for two or three years, but continued at his work until six months since. Had emaciated very rapidly for the last five weeks. Was first seen three days before death, when he presented the following appearances. He was extremely emaciated; the eyes half open, sunken, and the conjunctivæ reddened. The abdomen was enormously distended by ascites; the voice puerile, but the mind hopeful and clear. He had had *little or no vomiting,* but only occasional retching. The appetite was gone, and the mouth aphthous. The bowels were rather constipated. He died without any change of symptoms.

*Autopsy* by Dr. ELLIS. The *stomach,* externally, was of a dull white color. Portions of the large and small *omentum* attached were of the same color and seven eighths of an inch in thickness. In some parts of the latter were small translucent nodules having the appearance of colloid, but most of the tissue was quite dense. The walls of the stomach, from the pylorus to a point six and a half inches within, were much thickened, the maximum thickness being three eighths of an inch. The mucous coat of the affected part was considerably thickened, of a yellowish color and transformed into a pretty firm colloid substance. In the lesser curvature, two and a half inches from the pylorus, was a somewhat irregular ulcer, between two and three inches in diameter, the base of which was formed by the dark-brown muscular coat. Between the fibres of the latter, colloid substance was also seen. The muscular coat presented the striated appearance so often met with in cases of cancer of the stomach, and was in one part one fourth of an inch in thickness. There was agglutination of the stomach to the surrounding organs.

The *peritoneal coat* was dotted over with a whitish substance, which was easily removed. The peritoneal cavity contained about four gallons of serum. The other organs were healthy.

JULY 14th.—*Cirrhosis of the Liver; Granular Disease of the Kidneys; Valvular Disease of the Heart; Death; Autopsy.* Dr. GOULD reported the case.

May 21, 1856.—The patient, B. L., was a shoemaker, aged 69. In 1842 he had "obstruction of the liver" for about seven weeks; had also had some swelling of the legs in the spring for three or four years past. In

[illegible]

[illegible]

[illegible]

JULY 28th.—*Cancer of the Lung, Pericardium and Heart. Autopsy.*—Dr. ELLIS showed the specimen and reported the case.

The patient, a widow, 72 years of age, had always enjoyed good health until the fall of 1855, when a cough commenced, but did not attract much attention until December. Towards the close of this month she took a severe cold, to which she attributed her subsequent illness. She then began to complain of pain in the left side, and the slightly increased cough was accompanied by the expectoration of thick, yellowish matter, occasionally streaked with blood. There was no fever at any time. She had no medical advice until seen by me on Feb. 15th, 1856. At that time there was but little or no cough, and no expectoration. She complained much of a "stuffed" feeling in the anterior part of the chest, or between that point and the shoulder, and pain in the left side. Her debility was such that she was confined to the bed during the greater part of the day. Pulse 112. No heat of the skin. No appetite. Bowels well. On examination of the chest, there was found dulness extending from the left clavicle to the third rib. The chest was elsewhere resonant. In the part where the dulness was noticed, was an indistinct mucous râle. Respiration elsewhere normal, but very obscure in the lower half of the left back. There was some projection of the cartilages and anterior extremities of the second, third and fourth ribs.

Under the use of anodynes, expectorants and tonics she gained strength, and improved generally, though still complaining of pain in the side, and oppression. On March 1st, she was attacked with severe pain in the lower and anterior part of the right side, attended by great dyspnœa and a pulse of 150. On examination there were found dulness on percussion in front, below the fifth rib, and a distinct mucous râle. She was soon relieved by anodynes, and, by the 7th, the physical signs disappeared.

Under the use of quinine and nourishing diet she again improved, so that she was able to sit up the greater part of the day. Still she complained of a dull constant pain in the left side, and the same "stuffed feeling" in the chest. The dulness below the clavicle persisted, and the lower part of the left back became less resonant than the right. Mucous râles were heard at both of these points, where there was also unusual resonance of the voice. The râle and dulness in the left back varied much from day to day, and, at times, were almost or entirely wanting. The cough was very slight, and no expectoration was seen until April 15th, when a few thick, yellowish sputa, containing some traces of blood, were preserved upon a handkerchief. On May 20th, she moved to South Boston, and was much fatigued by the ride. The oppression in the chest became much more troublesome, and when seen by me, three days after, the dyspnœa was quite marked. There was, however, no fever. Pulse 88. A very cursory examination of the chest only could be made, but quite extensive dulness was detected in the left back, with absence of the respiratory murmur. The cough was slight, and attended by the expectoration of a little viscid, orange-yellow matter. Infusion of serpentaria, and quinine, were prescribed, and a blister applied to the affected side. She soon became more comfortable, but the dulness increased until it extended over the whole of the left side, a little resonance being occasionally found in some spots about the scapula. Bronchial respiration and bronchophony were frequently heard near the lower angle of the scapula, and the voice was unusually resonant below the clavicle. Some respiration was occasionally heard about the lower angle of the scapula, but no marked improvement took place. Both

sides of the chest appeared to expand equally well. Sounds of the heart normal, but, during the latter part of the time, heard over the whole front of the chest, their maximum intensity, however, being in the middle of the sternum, or in the usual spot. The expectoration, with the exception that it was once or twice decidedly purulent, with a little blood intermixed, continued of the same character previously mentioned, very viscid and yellow. It was twice examined microscopically, and contained blood globules, and granular corpuscles closely resembling those of pus, but without the characteristic nuclei. It was always scanty, and towards the close almost entirely ceased. The pulse varied from 84 to 88, until a short time before death, when it became much quicker. The appetite, which had generally been pretty good, at last failed entirely, and, for several weeks before death, scarcely any nourishment was taken, a difficulty in swallowing being at the same time complained of. Pain in the left side continued a most prominent symptom, and, towards the close, was for several days quite severe in the right side. The slightest exertion caused great dyspnœa and oppression; the strength declined; emaciation became more and more marked; the lower extremities became œdematous, and vibices made their appearance upon them as well as upon the fore-arms. She finally died on July 28th.

Though the physical signs were, to a certain extent, indicative of tuberculosis, their appearance in the lower part of the back, and at one time, transiently, in the lower part of the right side, would not admit of this explanation. The age and previous history of the patient, the character of the expectoration when seen, and the healthy condition of the other lung, were all opposed to it. There was no evidence of gangrene, and none of the existence of a solid tumor, with the exception of the prominence mentioned, and this might be a simple deformity. It was therefore concluded that there was congestion, or a low degree of inflammation of the lung, as either of these would sufficiently account for the physical signs, and was not incompatible with the marked improvement in the general health, which, for some time, took place. The supervention of the dulness on percussion, afterwards, rendered it probable that effusion had taken place into the cavity of the chest, but the long persistence of the other thoracic symptoms and their character, indicated graver disease of a malignant nature, behind this.

In the treatment, tonics were mostly relied upon, though other medicines were from time to time administered, according to the indications.

On examination, the *left pleural cavity* was found to contain three pints of yellow serum, at the bottom of which was a red and white substance, closely resembling soft encephaloid. The left upper lobe was five inches in length and four in breadth; its apex was on a level with the arch of the aorta. Upon the anterior edge were a number of dull-white nodules, from half an inch to an inch in diameter, which yielded an abundance of milky fluid. Near these nodules was a ragged opening, apparently formed some time before death; through it a soft, encephaloid substance could be forced. This came from a cavity occupied by a large yellowish-white, soft, flocculent, cancerous mass, two and a half or three inches in diameter, commencing an inch and a half from the apex of the lung. Into this cavity a bronchus opened. Anteriorly the mass was quite solid and firmly adherent to the pericardium. The remainder of this lobe and the lower, were dark-red and much compressed. In the primary bronchus, was a yellowish-white vascular growth, 3-4 of an inch in diameter, rising slightly above the surrounding surface.

A few ounces of serum were found in the *right pleural cavity*. The *right lung* was highly œdematous, but in other respects normal.

There was universal old adhesion of the *pericardial surfaces*, which were, however, separated with but little difficulty except at a point just below the valves of the pulmonary artery, where the disease had attacked the pericardium and the substance of the heart itself, the whitish encephaloid growth nearly reaching the inner surface. It had evidently extended from the mass in the lung, with which it was continuous.

The *heart*, with the exception mentioned, was normal.

The *brain* was not examined. The other organs were sufficiently normal.

On microscopic examination of the morbid growths, there were found large granular cells of various shapes and sizes, containing large nuclei and nucleoli. These were very distinct in the nodules along the anterior edge of the lung; much less so in the larger mass and in the substance of the heart.

If there be cells peculiar to cancerous disease, they were found in this case.

JULY 28th.—*Severe Injury to the Head, followed by Hernia Cerebri; Death; Autopsy.* Dr. CABOT showed the specimen and reported the case.

The patient, a young man, aged 25, of a sanguineo-nervous temperament, received, on the 9th of May, a severe blow on the top of his head, by which he was knocked down, but thought not stunned. Profuse hæmorrhage followed from three small wounds, neither of which was an inch in length, situated to the right of the vertex, on the right parietal bone. The surface of the bone was roughened, and a small detached piece was removed by the dressing forceps. There was no depression apparent, on a careful examination with the finger and probe. The cerebral functions and the nervous and muscular systems were unaffected. There was some fixed pain along the right side of the head; but no affection of the vision or of the position of the eyes, or of the size or mobility of the pupils. The wounds were brought together by the hair, water-dressings were applied and a Seidlitz powder recommended, and rest and quiet enjoined. On the fourth day, redness and suppuration were observed in the neighborhood of the wounds, and the hair fastenings were removed and poultices applied. Slight horripilations were observed, but so slight as not to attract much attention. He improved slowly, without much appetite, till the tenth day, when he rode into the country six miles and back. On the next day he became worse, but transacted business of an agitating nature, after which the pain in the head increased, accompanied by slight drowsiness. These symptoms continued to increase. On the 21st and 22d of May, he became somewhat feverish, the mind, however, remaining clear and the nervous system unaffected. There was, at this time, no injection of the conjunctivæ, no squint or irregularity of the pupils. The pain in the right side of the head continued to increase, for which leeches and cold were used with much relief. The bowels being naturally constipated, had been kept open from the first by cathartics. The pulse, from about this time till after the separation of the hernia, was about 55 and rather incompressible. He seemed better for several days, until the 31st, when a slight loss of power and sensation in the left leg was observed; the arm of the same side becoming on the next day partially paralyzed in sensation and motion, and the affection of the leg having somewhat increased.

The paralysis still increasing, on the 3d of June, assisted by Dr. S. D. TOWNSEND and Dr. H. J. BIGELOW, Dr. CABOT trepanned the patient, with a

large trephine, removing all the injured and a portion of the healthy bone. On removing the piece, it was found that a portion of the inner table had been detached by the injury, and it was removed separately. An ounce, more or less, of pus was discharged, apparently from between the dura mater and skull. On pressing the surface of the dura mater at the upper edge of the opening, the flow of pus was increased, as if the pressure of that membrane against the edge of the opening interfered with the discharge, and pushing it back increased the latter by removing the obstacle. With the idea, that it might possibly escape from some opening in the dura mater, and that it might be from the cavity of that membrane, a careful exploration was made with probes, but without discovering any such opening. There was no material change in the symptoms after the operation, except a short cessation of the pain.

On the morning of June 4th, he had quite severe clonic spasms of the left side of the neck, trunk and limbs, but not of the face. He called these spasms palpitations of the heart, and complained that they produced a sense of suffocation. They lasted for two or three hours. Counter-irritation was extensively used on the trunk and limbs, with apparent benefit. The paralysis continued to increase. Periostitis along the right side of the head soon after supervened, œdema extending from behind the parietal protuberance to above the left eye, followed by suppuration extending from near the wound to the front part of the parietal bone, for which an opening was made through the scalp and pus discharged. The bone felt rough near the wound. On the 11th he began to improve. The headache left him on the 18th, and the paralysis appeared to be diminishing. The appetite was good, and the patient seemed cheerful. He continued to improve until he had regained, in a good degree, the use of his hand. The tongue was clean. On the 24th, after taking improper food contrary to orders, he had some pain through the temples, and anorexia; and the tongue became covered with a white coat. He also complained that sounds heard by the right ear appeared to pulsate. The pain was paroxysmal; at the time of the attack, the face becoming flushed. There was no injection of the conjunctivæ. The bowels were moved by blue pill followed by castor oil. The pain, however, constantly increased.

On the night of June 28th, six leeches were applied to the temples. On the next day, six more to the same part. Pills of calomel, rhubarb, aloes and ipecac, were also given, without effect upon the bowels. On the morning of the 30th, he vomited a greenish fluid, emitting a strong acid odor, with the undigested pulp of grapes eaten the evening before. Six leeches were ordered to the temples, counter-irritation to the legs, cold to the head as before. During the forenoon he had tonic spasms of the flexors of the left arm and leg, accompanying the paroxysms of pain in the head, and disappearing with them. The mind was clear. Pupils natural. He had also tonic spasms of the right sterno-mastoid muscle, and in the afternoon of the flexors of the right arm and leg. Pain, also, apparently of a neuralgic character, occurred in the nose, breast and cheek, unaccompanied by any apparent contraction of the muscles of those parts. Castor oil was ordered. The symptoms continued severe during the night. There was a free discharge from the bowels early in the morning.

July 1st.—Spasms, as before, occurred, coming on every few minutes. Towards evening ether was given, apparently with the effect of increasing the frequency of the spasms, so that they occurred every minute or two, continuing frequent during the night, the patient suffering a good deal till

towards morning, when he became more easy, and slept. The mind was still clear; the pupils natural; there was no injection of the conjunctivæ.

July 2d.—Slept most of the day. The spasms less frequent and violent. At about noon his mind wandered; he however recognized his friends, and answered intelligently, but imagined himself not in his own bed.

July 3d.—He passed a quiet night; had two free dejections early in the morning; his mind still wandering. Had some appetite; during the day was watchful, and toward evening had almost constant spasms. Fifty drops of the fluid extract of opium was ordered, after which he fell asleep, and slept almost constantly, until awakened by explosions of cannon, &c.

On the morning of July 4th, he had frequent convulsions and trembling of the right arm and leg; and a very offensive slough was found to protrude at the old opening in the scalp, a part of which was removed after a slight incision, with the dressing forceps. The patient was wandering, but could be aroused to perfect consciousness; said that he did not suffer except slight uneasiness about the head; took his arrowroot with relish; had a good deal of spasmodic action during the night. Flexors of hand were now permanently contracted, so that the fingers remained crooked at the ends.

5th.—Continued much as yesterday, but there was more wandering and weakness. The projection under the scalp felt and seemed like *hernia cerebri*, but was still covered by the scalp and sloughy matter.

6th.—Had a tranquil night, sleeping most of the time; not much convulsed. The hernia cerebri had increased in prominence, the scalp yielding so as to allow it to pass through. Appetite good; pulse 60, increasing in strength and frequency; the mind much less wandering.

7th.—Had a very good night; very few convulsions; appetite good; Pulse stronger and more frequent. Had had no pain for some days back. Contraction of the flexors of left hand, which had continued since the onset of last unfavorable symptoms, no longer constant. The *hernia cerebri* was as large as a hen's egg, with a red surface almost entirely clear of sloughy parts; it did not hurt him to press it moderately, but he complained that when it was uncovered it stuck to the pillow, which caused it to pain him somewhat; and as it was not easy to keep it covered without too great pressure, this often happened. He said "it felt as if it contained a fluid which washed round" when he moved his head; it gave a feeling of fluctuation to the touch.

8th.—Mind clear; appetite good. The hernia came off spontaneously, the separation accompanied by very slight hæmorrhage. Pulse about 70, of good strength; he seemed very quiet; the left hand was not contracted, and lay at ease by his side most of the time. Took oil and lemon juice early, which operated sufficiently.

The mass, after its separation, was examined with Dr. Ellis, and found to consist of a fluctuating sac about an inch and three quarters in diameter. Its external surface was ragged and of a light red color. Attached to one portion, was a thin layer of cerebral substance about an inch in diameter, covered with pia mater. Near this was the dry black mass, which had protruded through the wound, and a red cup-shaped pedicle (resembling the foot of a gasteropod) three or four lines in thickness and an inch and three quarters in diameter. A little thick, bloody pus could be forced from an opening near this pedicle, and on incision, an ounce or more of the same fluid escaped from a cavity, the walls of which were from a line to a line and a half in thickness and composed of two distinct layers; one external, of a light red color; the other internal, dark red, like recently coagulated

blood. Over parts of the latter was spread a thin coat of soft reddish substance.

On microscopic examination of the purulent fluid, many blood-globules and inflammation corpuscles were seen mingled with pus. In all parts of the external surface, and in the thick pedicle, were fragments of cerebral substance mingled with blood.

Judging from the above appearances, it was concluded that an abscess had formed in the brain and had separated entire, owing to the softening of the cerebral substance around its thickened walls.

9th.—Had a good night. Mind clear. No convulsions; some voluntary motion of the left hand. The substance of brain, in spite of considerable compression, forced its way out, and after a while sloughed and became, together with the discharge, very offensive; there was no pain or uneasiness, except from the fatigue of lying. After the protrusion appeared, moderate compression, with soft sponge, compress and bandage, was applied. Pulse 75 to 80, good.

10th.—The brain continued to force itself through the opening, though less than yesterday. Mind clear and calm; pulse about 80, good though feeble. The appetite was excellent, the patient wanting more than could be allowed him. Had a very good night; slept most of the time; there were no convulsions; the left hand was flexible, and there was some voluntary power over it. Tongue still coated with a pasty white coat. Had one liquid dejection.

11th.—Had a good night. Pulse 80, fair in strength. Tongue as before. Brain still forced itself out, in spite of pressure, but not so much as it did. Mind clear and calm. Pupils natural and equal. There were no convulsions, and there was some motion of left arm. Patient slept well and quietly.

12th.—Had a good night. Much as yesterday, there being less protrusion of the brain. Pulse 80.

14th.—Protrusion seemed to be growing less every day. Sub-pericranial abscess on side of head, and which appeared healed, re-opened and had discharged considerable healthy pus for some days. Took oil, which operated fully several times. Towards night there was some pain in the forehead; the head more hot, with more arterial action in and about the head.

15th.—Passed a restless night (the weather being very hot), but slept towards morning. Had no pain in the head. Pulse 76. Had less appetite.

16th.—Pulse 76. Passed a very good night. Protrusion less; seemed to consist now, in a great part, of membranes with but little of the cerebral substance; the mind clear and calm. Tongue cleaner. Some pain on injured side of head. Towards evening, the protruded portion of brain was more red and larger.

17th.—Passed a restless night, with little or no pain in the head. Pulse 76. Protrusion redder and larger. In the evening had pain on top and to the right, near right parietal protuberance; got to sleep, however, and slept most of the night. Had complained for several days of pain along the spine, from the head to the sacrum.

18th.—Some pain as yesterday, but less. Protrusion larger and redder. Pulse 80.

19th.—One dejection from enema. A portion of the protruded brain, dead and cold, was cut away. There was pain in the head. Pulse 80. Tongue white, with a pasty coat.

20th.—Passed a quiet night, but without much sleep. Pulse 88. No pain. Protrusion had somewhat increased. Another piece sloughed off.

21st.—Had a restless night, with some pain in right side of the head near the parietal protuberance. Slept a good deal during the day. Protrusion less. Pulse 80.

22d.—Was more restless, with some spasms. Pain in the head continued. Pulse about 75. An enema was twice administered, the last with considerable effect.

23d.—Convulsions continued at short intervals all night. Dilatation of the right pupil marked. No appetite. Towards night the patient became semi-comatose, the breathing being stertorous a great part of the time, with puffing of the lips. The extremities became cold, and the face and surface bathed in sweat. Pulse about 90, not very small.

24th.—Continued about the same, but more quiet, both in regard to convulsions and stertor. Complete anorexia. The convulsions latterly had been both tonic and clonic in character on both sides; the muscles of the face not affected.

25th.—The patient was insensible, sleeping deeply; the breathing quick, sometimes stertorous. Pulse 140, small. The convulsions were constant, but not violent. He died at 3½, P. M.

*Autopsy* by Dr. Ellis, at 8, A. M., July 26th, 17 hours after death.

The *head* only was examined. The *cellular tissue* beneath the scalp, over the posterior part of the right temporal region, and for some distance backward, was in a thickened, dense state, as from past inflammation. The *skull* was somewhat thinner than usual. The opening was situated about an inch above the apex of the lambdoidal suture, and had enlarged since the operation, its inner edge reaching the median line. Its margin and a portion of the inner surface of the right parietal bone, several inches in diameter, was reddened, rough, and quite deeply eroded. At one point, in the situation of the parietal protuberance, an opening a quarter of an inch in diameter had been formed. Extending outward and backward from the larger opening, was a single linear fracture about an inch and a half in length. The posterior part of the *right hemisphere* was quite prominent and fluctuating. The *dura mater* above was very vascular, and adhered to the mass of cerebral substance which projected through it.

The *convolutions* were everywhere flattened, as well as the vessels winding among them. Beneath the projecting mass which had formed the hernia before death, was an abscess from an inch and a half to two inches in diameter, containing a small quantity of pus. Its walls were pretty firm. The remainder of the hemisphere, with the exception of a small part of the anterior and inner portion, was softened in a marked manner. Red, white and yellow softening were all represented. The red predominated in the neighborhood of the abscess, and quite a large nodule of the same occupied the posterior part of the corpus striatum and optic thalamus. The color was owing to the presence of numerous small red points, as in capillary apoplexy. A much larger effusion of blood had taken place, just above the posterior corner of the lateral ventricle, into which a small black coagulum projected. The yellow softening was most marked around the nodule of red, which occupied the optic thalamus. The white was the most extensive. The parts thus affected were smooth, glistening, apparently moist, and rose, on section, above the more healthy surrounding tissue. The *right crus cerebri*, where it was divided in separating the cerebellum, was softened and so much swollen that it contrasted strongly with the left. On microscopic

examination of the softened portions, nothing was seen but blood and broken-down cerebral substance. The *left hemisphere* was normal.

JULY 28th.—*Rupture of the Uterus, resulting fatally.*—Dr. CLARK reported the case.

The patient was 35 years of age, and had been in labor 36 hours with her third child. She had been attended for six hours previously by another physician. The pains were violent and had ceased suddenly, soon after the administration of ergot. When first seen by Dr. Clark, the skin was blue and covered with cold perspiration; there was also sighing; the patient did not complain of much pain. The abdomen was full, but the child could not be felt through the parietes. The pulse was 150. There was little hæmorrhage. On examination a rupture was felt extending from the neck of the uterus, four or five inches up its posterior wall. The pelvis was small. The delivery of the child was effected, after considerable difficulty, by turning. The woman rallied a little during the operation; but died two hours after delivery, probably from the shock of the accident, as there was not sufficient hæmorrhage to account for the prostration.

Dr. Clark further stated, in reply to Dr. BOWDITCH, that one drachm of ergot was given two hours before the rupture took place, also that in the two previous labors the patient was said to have been delivered with instruments; in one case, the forceps, in the other the perforator, having been used.

Dr. Bowditch asked if most of the cases of rupture of the uterus, which had been reported in this city, had not occurred where ergot had been given. In a case where the two previous labors had required instrumental aid, Dr. B. thought that common prudence would have dictated care, with reference to a medicine of this character; that the physician should have ascertained at the outset the death of the child, and at once have proceeded to act accordingly; to the operation of craniotomy if necessary; science enabling us to ascertain, in such cases, with comparative certainty in regard to the life of the fœtus.

Dr. STORER stated, in reply to Dr. Bowditch, that he did not remember to have seen a case of rupture of the uterus which was traceable to the influence of ergot.

Dr. PUTNAM was inclined to doubt if this accident be often attributable to ergot.

With regard to the effects of this drug, Dr. Storer expressed a doubt whether these were in porportion to the quantity taken by the patient. He had known half a drachm to produce as much effect as double that quantity; further stating that he did not expect the operation of this medicine under three quarters of an hour or thereabouts; although he had known a patient, after having been without pain for several hours, delivered in seven minutes after its exhibition.

Dr. MINOT had supposed its peculiar effects to follow repeated doses rather than a large dose given at one time.

Dr. Clark thought that the inertness of this medicine, in certain cases, might account for the slowness of its action.

AUGUST 11th.—*Vicarious Menstruation.*—Dr. GOULD related the case.

The patient was 25 years old. She took a severe cold ten years since; and about six years ago had erysipelas of the head and neck, from which time her health had been more or less deranged. She had also what she

called a fever-sore upon the left leg, which proved to be an herpetic eruption, which commenced at the top of the calf and had travelled obliquely upwards nearly around the knee. From the surface thus affected, she had menstruated regularly, the blood oozing and sometimes running in streams from the part. She had also had occasional bleeding at the nose, and from the gums. The sore had much improved, and the patient had gained strength under the influence of quinine and port wine.

Aug. 11th.—*Impacted Fracture of the Neck of the Femur.* Dr. Clark showed the specimen and related the case.

The patient was a man 84 years old, who had been hemiplegic for several years. The fracture was produced by a sudden fall upon the trochanter.

Dr. C. found the patient in bed, the foot and leg being slightly everted, with shortening of the limb to the extent of from one half to three fourths of an inch; there was also immobility of the leg, but no crepitus. The patient was confined to his bed for four weeks without any untoward symptom; loss of strength and appetite, however, supervened, and he died in the middle of the seventh week after the accident. The fracture seemed to have united before his death.

On examination *post-mortem*, the fracture proved to be impacted, the fractured portion of the neck having been driven into the trochanter, as is shown in the accompanying drawing.

Dr. Jackson remarked that he believed cases of impacted fracture of the neck of the thigh-bone are much more common than has been supposed. He alluded to a case which he saw a year and a half before, in which the fracture had occurred from a slight accident. After the death of the patient, which took place in a few weeks, the neck of this bone was found so firmly impacted as to require a considerable force to dislodge it. There could be, of course, in such a case, no crepitus, nor could the limb be drawn down. This condition would also account for the facility with which patients sometimes walk immediately after this accident.

Dr. H. J. Bigelow thought impacted fracture of this part probably very frequent. He also stated that he had noticed a *torsion* of the neck of the bone in these cases, as if its posterior portion had been first driven in; a condition to which writers had not adverted.

Aug. 11th.—*Disease of the Kidney.* Case reported by Dr. Storer.

A woman aged 28 years entered the Hospital June 18th. She was confined thirteen months previously, her health having failed since that time; she had swelling, pain and tenderness of the abdomen; also amenorrhœa since the fourth month, when her child died; she had had frequent chills and heat, but seldom of late; she had much loss of flesh and strength, and had had slight cough for some time past. She had "pain and scalding in micturition, the urine being very scanty, turbid and high-colored, and was called upon to pass water perhaps as often as twenty times a day. These symptoms had decreased during the past three months." On examination,

Dr. S. found the abdomen as above, with dulness on percussion; and "a large, hard, resisting body" filling up a large part of the left side of the abdomen; this body being regarded as an enlarged spleen. The urine examined on June 23d, was found to contain "a small deposit of white amorphous urates," but was not otherwise remarkable; no albumen. Patient gradually sank, and died Aug. 7th.

Dr. Jackson made a very hasty examination, and found old tubercular peritonitis, with a considerable quantity of sero-purulent effusion. The *left kidney* was greatly enlarged and weighed 2 lbs. 6½ ozs. On incision it contained a great quantity of whitish-opaque, soft curdy matter, formed apparently in the dilated and diseased infundibula and pelvis; the substance of the kidney itself being nearly healthy; the *ureter* was also much diseased.

On examination by Dr. Bacon, the substance found in the kidney proved to consist of a large amount of fatty matter in granules and globules, wholly obscuring its tissues. No tubercular corpuscles or pus globules were seen.

*Right kidney* healthy.

In the *left lung* was a small tubercular cavity, but otherwise these organs were sufficiently healthy.

Aug. 25th.—*Fracture of the Neck of the Femur within the Capsule.* Dr. Clark showed the specimen and reported briefly the case.

The patient was a fleshy woman, who met with the accident by being tripped by a dog. There was crepitus, *eversion* and shortening. She died at the end of a fortnight, of an affection of the heart, to which she had been subject.

Aug. 25th.—*Pleurisy; Great Contraction of the Chest; Autopsy.* Dr. Ellis showed the specimen and reported the case.

The patient, an intemperate man, 40 years of age, had been employed for seven months before his death as carpenter in a brewery. He entered the Massachusetts General Hospital on June 21st, having been attacked with pleurisy of the right side the night before. Six years previous he probably had a similar attack in the left side, as openings formed there, through which a large quantity of pus was discharged. After being sick a year, he recovered and resumed his usual work.

The respiration and pulse were very rapid at the time of his entrance, and he died on the following night, quite suddenly.

At the examination, two pints of serous pus, containing numerous yellow flakes, were found in the right pleural cavity, the walls of which were every where of a vivid red color, and coated with a thin layer of purulent lymph.

The left side of the chest was much contracted, particularly the upper half. There were two depressed cicatrices in front; one, two inches above, the other, an inch and a half below, the nipple. From the first a little serous fluid escaped.

The *diaphragm* was forced up, anteriorly, as high as the fourth intercostal space. The parts within the cavity of the chest formed a continuous mass, the compressed lung blending with the surrounding false membrane, in which its color was gradually lost. This membrane was, in parts, about an inch in thickness, fibrous, extremely dense and tough, and closely united to the parietes, the soft parts of which had also undergone a fibrous change, and were, externally, firmly adherent to the skin. In other words, the skin, parietes, false membrane and lung, were inseparably bound together. A probe, passed through the fistulous opening, entered a cavity in the posterior part of the chest, from one to two inches in diameter, extending from the first to the fourth rib. This had soft, dark-gray walls, and appeared to occupy the substance of the lung, but the latter blended in such a way with the adventitious tissue surrounding it, that it was impossible to determine the point precisely. No proper pulmonary tissue was seen posteriorly, but the color of the thin layer, intervening between the cavity and the dense false membrane, was the same as that noticed elsewhere, on the confines of the fibrous and pulmonary tissue.

There was some air in the apex of the *left lung*. The small portion remaining below, in which the pulmonary structure could still be traced, was soft and flaccid. It was gradually lost, as previously stated, in the false membrane surrounding it.

The *right lung*, though occupying a smaller space than usual, was still crepitant.

After maceration, the following changes were noticed in the left side of the thorax. The *spine*, in the upper part of the dorsal region, was curved to the left. The *ribs* were forced inward to such an extent that the distance from the spine to the extremity of the first rib was but $2\frac{1}{4}$ inches; to the end of the third rib, 3 inches; to the end of the fourth rib, $3\frac{1}{2}$ inches; to the sixth rib, $4\frac{1}{2}$ inches. The ribs, from the third to the tenth inclusive, were much thickened, so that on the inside they had a triangular appearance, while externally they were flat as usual. The third, fourth, fifth and sixth had become remarkably thin from pressure against each other, the change commencing about midway and extending 3 or 4 inches outward. It seemed as if nature had endeavored to guard against contraction, by strengthening the ribs upon their concave side, but that the pressure had been sufficient to force the thickened ribs against each other and cause extensive absorption of their substance.

The *pericardial surfaces* were universally adherent, but separated with ease, the uniting tissue being delicate though old.

The *liver* was large, quite friable and very fatty. Weight 5 lbs. 7 ozs.

August 25th.—*Ovum containing Twin Fœtuses; Bifurcation of the Umbilical Cord.* Dr. Jackson showed the specimen, which was from a patient of Dr. Alley. She was 44 years of age and mother of seven children. Two years ago last April, she was seized with a severe attack of flooding, which continued more or less for ten weeks, when it ceased, and she began to improve under the use of tonics and good diet. Since the attack, her menses recurred at irregular intervals. On the 2nd of October, 1855, they appeared and did not recur again for four months. In the meantime the breasts became swollen, and she had a craving appetite and concluded that she was pregnant. In the course of seven weeks these symptoms disappeared, and in February last she began to menstruate, scantily and of a dark color. On the night of the 1st of May, she began to flow, but it ceas-

ed in a measure, during the next day. The next night she was seized with vomiting and purging, and towards morning the ovum came away entire, enclosing the specimen as here exhibited.

The ovum was found to be diseased, and the fœtuses about as large as at the tenth or eleventh week. There was but a single umbilical cord, which bifurcated as it approached the fœtuses. The specimen is in the College Cabinet.

August 25th.—*Breech of a Gun extracted from the Superior Maxilla after a lodgement of eight years.*—Dr. Storer read the case, which was prepared by Dr. Frazer, of St. Johns, Newfoundland, for publication in the *Edinburgh Medical and Surgical Journal*, and sent by him to Dr. S., together with a model in plaster of the piece of metal extracted.

Dr. Cabot referred to an analogous case that occurred here some time since, in which the same portion of the gun, including the screw, was lodged in the face.

Dr. Jackson alluded to a similar case which occurred abroad, in which the breech-pin was blown in among the bones of the face, partially occupying the frontal sinus.

Sept. 8th. *Nephritis; Pyelitis; Villous Cancer of the Bladder.*—Dr. Storer reported the case.

The patient, W. R., was a farmer, aged 55, married, and had resided in New Hampshire. He entered the Massachusetts General Hospital, July 18th, 1856, and gave the following history of his case. His health had been good until ten years ago, when he began to have, frequently, a "stitch" in the small of the back. This difficulty gradually increased, and for the past eight years he had had more or less soreness and some tenderness upon pressure, in the region of the left kidney. He had had occasionally, for the last four years, a "burning" and "throbbing" sensation in the urethra after micturition. A year ago last May he had sanguineous urine. He also stated that occasionally, when passing water, he had such a pressure downwards as to produce involuntary discharges from the bowels. Four weeks ago, while using medicine, he passed from the urethra white bodies of the size of a common bean, which became reddish on exposure to the air. He had had, occasionally, difficulty both in retaining and in passing water, and was obliged to micturate from fifteen to twenty times in twenty-four hours. Stomach and bowels well.

The general appearance of the patient was healthy, he complaining chiefly of the back and a burning sensation in the urethra. Erections still come on occasionally during micturition. The tongue and skin natural. Pulse 62. On the following day the abdomen was somewhat distended, and the patient shrank from the slightest pressure over the pubes. Poppy fomentations were ordered to the lower abdomen, but the bladder was too irritable for examination by the sound. On repeating the operation some days after, no foreign substance was found.

The urine, examined by Dr. John Bacon ten days after his entrance, was found turbid, colored by blood, alkaline from carbonate of ammonia; density 1013. There was a large deposit, composed chiefly of whitish ropy mucus, with blood corpuscles and phosphates, and a few pus globules, granular exudation corpuscles and epithelial cells. The mucus was probably in part a result of the decomposition of pus by the alkaline urine. Considerable albumen was found, which was due to the blood and pus present.

The patient continued to suffer more or less pain in the region of the bladder, with occasional pain over the left kidney, together with frequent and painful micturition; the urine being accompanied at times with blood and mucus. Temporary relief only was afforded from these symptoms by fomentations, diluents, opiates, &c. The most marked relief from his distressing symptoms was had from the injection into the bladder of a solution of nitrate of silver, the urine being passed more freely after its use, and being retained for a longer time than before. The strength of the solution employed was at first in proportion of two grains to the ounce; owing, however, to the extreme pain which this caused, a solution of one half the strength was subsequently used. During the last week of his life the pulse became more frequent, the bowels irritable, and he had a constant disposition to vomit, the ejecta consisting of a dark-greenish fluid. Two days before death, the fluid from the bladder was small in quantity, grumous, with a thick sanguineous sediment; during the twenty-four hours immediately preceding his death, what he passed from the bladder consisted mostly of blood, being about two ounces in quantity and resembling vicarious menstruation. He died at the end of seven weeks after his entrance into the Hospital.

*Autopsy* by Dr. Ellis. The *left kidney* was of large size and exceedingly soft and flaccid, in some parts almost diffluent. Substance of a dark red or blackish color. Many small purulent deposits scattered about. The investing capsule was removed with ease. The *pelvis* was much dilated and filled with thick bloody matter. The *mucous membrane* was of a dark-red or slate color; in some parts roughened and covered with granular lymph. The *ureter* was an inch in circumference, and its walls more than a line in thickness. The lining membrane was red, and covered with lymph like that of the pelvis, these changes being most marked at the upper part and gradually disappearing towards the bladder. At a point an inch and a half below the pelvis, the canal was only a line in diameter. The *right kidney* was smaller than usual, and pale. The *calices* were dilated, forming cavities a quarter of an inch in diameter. In one of them a trace of lymph was seen, but the lining membrane was elsewhere smooth and pale, like that of the pelvis. The *ureter* was an inch and three eighths in circumference; thickened, but in other respects normal.

The *bladder* was four inches in diameter; its walls being half an inch in thickness and the fibres of the muscular coat much hypertrophied. Upon many parts of the inner surface were small, dirty-white patches of lymph, some of them roughened by a deposit of salts from the urine. Rising from one fourth to one half of an inch above the surface, just within and a little to the right of the meatus, was a soft, highly vascular villous growth, three inches long and from an inch and a half to two inches wide. The vessels were parallel to the villi, which were very distinct, and in water presented very much the same appearance as the villosities of the chorion. The disease was confined to the surface, and resembled soft encephaloid.

The microscopic characters were those of villous cancer, viz.: villi and large cells of various shapes and sizes, some of them containing large nuclei and nucleoli.

The *brain* was not examined.

The other organs were normal.

Dr. Jackson remarked that this disease is here quite rare, and alluded to two cases, a specimen of one being now in the Cabinet (No. 607). These

were the fungous excrescences which had been compared by Wilson to the *placental vessels unravelled.*

Dr. WARE mentioned a case of a Hospital patient, in which the injection of a solution of nitrate of silver was used with great relief. The patient was a man aged 30, who had had frequent micturition for a year past, which within a fortnight had become particularly frequent during the night. Within the past six or eight weeks he had passed blood and pus. There were no symptoms referrible to the kidneys. The general aspect was that of malignant disease. The catheter in passing the prostate caused extreme pain. Much relief followed the use of the above injection, which was in the proportion of a grain to the ounce. There was no tumor in the abdomen. Just above the pubis was a spot where there was considerable tenderness, which had in a great degree passed away.

Dr. STORER also alluded to another case in which this injection, although it caused great suffering at the time, was followed by marked relief.

SEPT. 8th.—*Advantages of Chloroform as an Anæsthetic.* Dr. TOWNSEND read the following letter from a distinguished English Surgeon, in reply to an inquiry, made by him, why chloroform was still used in England in preference to ether.

"Dr. Townsend inquires why we employ chloroform rather than ether in this country. I believe that it is for much the same reason that people travel by an express rather than a slow train; they reach their destination more quickly and pleasantly, though at a slightly increased risk.

"Chloroform acts much more quickly than ether; a teaspoonful will produce as much effect when inhaled as half a pint of ether, and when a surgeon has several operations to perform in succession, time is of much moment to him and his assistants, and, in Hospitals, to the spectators.

"Chloroform is a much more pleasant agent than ether, it is more agreeable to the taste, and leaves no disagreeable odor behind. It also produces less excitement during inhalation. These advantages, as you will observe, are entirely on the side of convenience. On that of safety, I believe that ether will bear the palm. But yet chloroform has, I think, had more to answer for than it really deserves. It does not follow that every patient that dies under chloroform dies *from* chloroform. Patients used not infrequently to die "under the knife" or "on the table," as it was technically termed; in other words, during an operation, in the days when no anæsthetics were used These deaths arose from shock to the system, from severity of pain sometimes, and in others from a peculiar *physical* impression that is produced in the system by a severe mutilation. The deaths from pain now never occur, as operations are painless; but the employment of anæsthetics, whether ether or chloroform, does not always appear to save the patient from the shock that results from the depressing effect on the heart that a severe operation will produce, independently of any pain resulting from it. All deaths of this kind are now classed together as deaths from chloroform, if the patient has been under the influence of that vapor, when in reality they would have occurred independently of it. At the same time it is impossible to blind myself to the fact that there is danger attending the use of chloroform, which is inherent and inseparable from its administration; that it is a potent agent which should never be given but by those who are in the constant practice of using it, and that when by them given, great watchfulness and caution are required. When a patient is *fully* under the influence of chloroform, he is *on the verge of death*, and the least want of

attention on the part of the administrator may extinguish life. I have never known death result from chloroform when due care has been used. In the only case that has fallen under my own observation, the administrator was inexperienced, and therefore probably too rash."

In answer to Dr. BETHUNE, who asked how many cases of death under the knife he had known, Dr. Townsend stated that he remembered but one case, previous to the introduction of ether.

Dr. PUTNAM asked if any instance of death had occurred from the inhalation of sulphuric ether, to which Dr. T. replied that no such case had been reported.

Dr. Bethune thought it singular that English and Scotch physicians should still persist in the use of chloroform.

Dr. BLACKIE, of Edinburgh, who was present by invitation, remarked that this agent is there now used oftener than ever before, there being but one fatal case from its use recorded in that city. He further stated that but *five* fatal cases had been recorded in Scotland, in two of which death was satisfactorily shown to have been due to other causes, and in the remaining three no definite conclusion was arrived at as to the true cause of death. The accidents in England from its use, he remarked, had not been infrequent, a fact which had been attributed to the impurity of the chloroform there used.

Dr. Townsend remarked that it was in favor of sulphuric ether that no caution was required in its administration, and that the patient was never "on the verge of death."

SEPT. 22d. *Larvæ of the Musca Vomitoria, or Flesh Fly, from the Ear of a Child.* Dr. BETHUNE showed the specimen.

The patient was a child 3 years old; had had otorrhœa for a year, which ceased some time since; had pain the day before Dr. B. saw her, at which time the mother extracted from the ear, by the aid of a hair pain, a maggot like the one exhibited. Considerable hæmorrhage had taken place just before. On examining the ear, Dr. B. found another, which he extracted.

Dr. Bethune remarked that these cases are extremely rare, but that a case fell under the notice of Dr. HOOPER, about a year since. Dr. B. attributed the pain in the ear to the activity of the worm.

Dr. HOOKER, of Cambridge, remarked that while a student of medicine he extracted from the ear of a patient a dozen of these larvæ, of the size of that exhibited.

SEPT. 22d. *Malignant Disease of the Right Ovary.* The specimens were from the right ovary of a woman whose case was read by Dr. STORER, having been sent to the Society by Dr. TOWNSEND, of South Natick; and were exhibited by Dr. ELLIS. They consisted of a mass of hair containing fatty substance, a portion of the larger cyst alluded to in the report of the case, and the entire smaller cyst, with the ovary attached, containing in its walls the bony points mentioned, somewhat resembling human teeth.

For four years past, since the birth of her last child, the patient had had occasional paroxysms of pain in the right ilium; for four months past, the symptoms had been more frequent and acute, and a tumor, first noticed in the median line, had developed itself. For eight weeks past, this tumor had increased, in common with another in the right ilium, more rapidly; for two weeks past, the right tumor had increased very rapidly, and exhibited unequivocal signs of fluctuation, with continued paroxysms of pain,

occasional dysuria, intestinal disturbance, nausea, diarrhœa and constipation alternating.

On Monday, the 8th, she was taken up as usual, had a dejection in the chair, and soon complained of a peculiar feeling of oppression and sinking, followed by acute pain and enormous distension of the abdomen. Dr. T. was summoned in haste, and though the distension was so great that the tumor could not be examined critically, he supposed a rupture of the sac had taken place, and that death was at hand. She continued sinking, but gradually growing easier, till Tuesday, the 9th, at 12, M., and was sensible at 7, A. M. of that day. Opiates and stimulants, by mouth and enemata, were the appliances. Vomiting of melanotic fluid took place, the night before death, and a similar fluid exuded from the nares and mouth after death.

Wednesday, at 9, A. M., Dr. Partridge assisting, and Drs. Hoyt and Russell being present, a *post-mortem* examination was made. The cavity of the *abdomen* contained two gallons, at least, of serum and pus. The *intestines* were everywhere covered with adhesions, old and new. The *peritoneum* everywhere highly injected, covered with every stage of false membrane, and bathed in pus. The tumors proved to be the right ovary, in two distinct lobes of large size, and several smaller ones—the right and left tumor being one and the same organ. The *ovary* was closely adherent to the cœcum, and was one enormous mass of cerebriform disease, with a large sac of pus in the right lobe, which had been poured out into the peritoneum. At the base of the organ, below the sac of pus, was found a mass of matted hair; another mass in another sac of smaller size, and spicula of what appeared to be bone, in the walls of the sac. The *left ovary* was enlarged to the size of an egg, and contained a mass of soft, homogeneous, cheesy matter, of a dark-brown color, and also had spicula of bone in its walls. The *uterus* was healthy, the os being only slightly ulcerated. The *bladder* was empty, much contracted, and firmly adherent, posteriorly, to the uterus. The *stomach* contained some four ounces of the black fluid, and was somewhat injected. The intestines were otherwise healthy; also the kidneys and liver. The *lungs* were infiltrated with frothy serum, and the cavity of the thorax contained about twelve ounces of serum. There were no tubercles.

Sept. 22d. *Partial Fracture of the Neck of the Femur in a Man 44 years of age.*—Specimen shown by Dr. Jackson.

The fracture, which appears as a mere crack in the bone, commences anteriorly just above, but very near to, the insertion of the capsular ligament, runs along this insertion for about an inch, and then extends directly upwards to the margin of the head of the bone. From this last point it crosses the upper surface of the neck almost in a straight line, and at a little distance from the margin of the head, but afterwards approaches very closely to this margin posteriorly; it then turns downwards and obliquely forwards, and stops at a point about half way between the small trochanter and the head of the femur, and two thirds of an inch or more anteriorly to the line of this trochanter. The fracture then involves about three fourths of the neck of the bone; the inner-anterior portion only being spared. There is considerable motion between the neck and the shaft, and the fracture could undoubtedly be completed without the application of any extraordinary force. Dr. J. referred to other cases of partial fracture; but a fracture of this sort, occurring in this situation and in a fully adult subject, he believed had

never before been described. There was also, in this case, a transverse fracture of the same femur midway, with a split extending upwards nearly to the neck of the bone; and still further, a fracture of the spine. The patient, a laboring man, fell through two stories of a building and down upon a hard floor. On the same day, he entered the Mass. General Hospital, and on the 18th day from the time of the accident, he died. The femur is perfectly healthy in structure, and no changes are observable in the bone about the fracture.

Dr. Mussey, of Cincinnati, remarked that this specimen was one of great interest, and alluded to the case of a hospital patient who came under his care, in which he suspected the same accident. The patient had fallen; there was lameness of the hip; *no shortening, no eversion.* On the following day, still no shortening could be discovered. During that night he walked about the ward. On the next day, the limb was found to have shortened to the extent of one fourth of an inch. There was evident fracture of the neck of the thigh bone, and an extending splint was applied, and kept on for three months. The patient left the hospital with the limb shortened to the extent of three quarters of an inch. Dr. M. questioned whether this were not a partial fracture, in the first instance, afterwards rendered complete by walking.

Sept. 22d.—*Fibro-plastic Tumor over the Scapula.* The tumor was removed by Dr. Townsend, and the description given by Dr. Ellis.

The patient was 67 years old, a seaman, active in his habits, and who had generally enjoyed good health. His mother had been affected with cancer. The tumor was of six months' standing, and the patient had suffered more or less, during this time, from pains like those of rheumatism, in the back and shoulder, sometimes shooting to the elbow.

On examination, the tumor was found to be a firm mass situated upon the dorsum of the scapula, with the *latissimus dorsi* covering its inferior extremity.

The following is the description of the tumor after its removal, given by Dr. Ellis.

The tumor was of the size of the fist, surrounded by a cyst, and quite vascular externally. On section, it presented a number of distinct, brownish-white nodules, about an inch in diameter, moist, elastic, and rising above the surrounding surface. These contained no milky fluid. On microscopic examination, there were seen delicate, straight or wavy fibres, containing numerous nuclei, many of them as large as a blood-globule and some considerably larger. In all were small nucleoli. The nuclei were not those described as peculiar to cancer, but still such as have been found in growths which have soon returned and destroyed the life of the patient. In one part were large yellowish-white granular masses, with a dark-red tissue intervening. The former contained much fatty or granular matter, and were evidently the result of inflammation or degeneration. The dark-red intervening tissue contained the same nuclei described above. Some portions were quite vascular.

Dr. H. J. Bigelow remarked that although the appearance of the nuclei in this case would seem to indicate an innocent growth, it was nevertheless compatible with the existence of cancer, some specimens of the latter consisting of small nuclei.

Sept. 22d.—*Hæmaturia; Enlargement of the Prostate, with Fungous*

*Growth into the cavity of the Bladder.* Dr. C. D. HOMANS reported the case.

The patient, J. H., was a man 75 years old, who had always enjoyed good, but not robust health, until about two and a half years previous to his death. He was by occupation a farmer, and of course spent a great part of his life in the open air; his frame was slight, and his whole appearance rather delicate.

During his 73d year, he began to be troubled with a frequent desire to pass his urine, so much so as to be obliged to get up two or three times in the course of the night; this was attended with some pain in the hypogastric region. There was never any retention of urine, though sometimes considerable difficulty in micturating. During the last eight months of his life, the urine was bloody; at times a small quantity of pure blood would be passed, and not infrequently long soft coagula moulded by the form of the urethra. He complained but little of pain about the region of the bladder, but suffered considerably from distress in the back, loins and limbs, resembling the pains of rheumatism, to which his occupation predisposed him. His health gradually gave way without any very great amount of suffering, save during the last two days of his life, when there was great difficulty in passing water; he also complained of pain in the left lumbar region. The bowels were generally costive, and the appetite poor.

Autopsy, 12 hours *post-mortem*. *Body* much emaciated.

The *head* was not examined.

The *thorax* contained nothing abnormal.

*Abdomen.*—The *spleen* was very small, puckered, and adherent to the parts around; the *right kidney* was very much atrophied, being about one half the usual size; the left was in a normal condition. The *bladder* was firmly adherent on the right side to the parietes of the pelvis; its walls were somewhat thickened. Upon, and to the right of the *verumontanum*, was a spot about the size of a half dollar, more elevated than the parts around, slightly more vascular, having a velvety appearance, not in a state of ulceration. This was found to be connected with the *prostate gland*, which was much enlarged, being about the size of a hen's egg. A microscopic examination revealed no cancer cells. The mucous membrane of the bladder was in a normal condition. The other organs were healthy.

SEPT. 22d.—*Poisoning by the Cyanide of Potassium.* Dr. C. E. WARE reported the case.

The patient, a woman, who at the time was under medical treatment, took by mistake a teaspoonful of a solution of the cyanide of potassium, this quantity containing about seven grains of the salt. Immediately after taking it, she complained of severe burning in the stomach, and a feeling as if the bowels were about to act. She went to the water closet, and almost immediately began to sink; she was removed to bed, and in three or four minutes became unconscious. It was found impossible to get anything into the stomach. She died in less than an hour. There was no convulsion; but a sudden convulsive action of the whole body about ten minutes after the heart ceased to beat. There was no *post-mortem* examination. (*Soc. Rec.*, vol. i., p. 231.)

In reply to Dr. BETHUNE, Dr. Ware stated that the color of the body was so natural, even on the following day, that he was called; the friends surmising from appearances that there might still be life. The expression of the face at this time was natural, resembling sleep.

Oct. 13th.—*Abscess after Confinement.* Dr. Bowditch stated that he had recently seen, in consultation, a woman who was confined four weeks ago. She had an easy labor, and her physician ceased to visit her eight or ten days after. At the end of a month he accidentally saw her, and found her complaining of pain in the right side, from which she had suffered more or less since her confinement. On examination, there proved to be some swelling over the region of the cœcum, which was painful on pressure, and evidently contained fluid. The pulse was good. The abscess was opened, and discharged a large quantity of pus. Dr. B. had seen one case where, under similar circumstances, an abscess had formed on the opposite side.

The pus, in the case reported, was without fœtor, and Dr. B. supposed the seat of the abscess to have been in the parietes, there being no evidence that it was in any way connected with the uterus.

Oct. 13th.—*Cysticercus Cellulosus.* Dr. Hodges showed the specimen, and remarked that these parasites, which are generally found in the muscles and cellular tissue, were here felt as small tumors just beneath the skin, varying in size from that of a grain of rice to that of a coffee bean.

Oct. 13th.—*Impalement upon the handle of a Pitchfork.* Dr. Jackson, in allusion to the case of this accident reported in 1853, by Dr. Sargent, of Worcester (*Soc. Rec.*, vol. i., p. 344), remarked that he had recently seen the patient, who has entirely recovered from the effects of the accident, and that there is still evidence, from the projection which is now apparent over the first rib, that this bone was broken; the posterior fragment having been drawn upward by the muscles of the vertebræ. The accident happened in 1851.

Dr. Coale mentioned that there were several remarkable cases of penetrating wounds, or impalement, on record, and the number of cases of recovery from these is very striking.

Dupuytren, in his clinique at the Hotel Dieu, gives one, recorded in the *Rev. Méd. Française et Etrangère* for March, 1834. A child fell from a cherry tree upon the end of a vine trellis, which pierced its chest from behind forwards, from the superior angle of the left scapula, through the thorax and abdomen, coming out at the right groin. The trellis, of oak, two fingers' breadth in thickness, was broken off, but still leaving enough projecting by which to extract it. Perfect cure occurred in fifteen days.

Another case is recorded in the *Gazette des Hopitaux* for July 4th, 1835, in which the subject fell, also, from a cherry tree upon a trellis. He had taken a little too much wine at dinner, and was essaying to finish his dessert in the tree, when the branch broke. It occurred on Friday evening, and a surgeon being immediately called, made ineffectual attempts, for five hours, to extract the wood, without the slightest advance. The next day, attempts were made with counter extension, and the aid of three more men, to extract it, but still without avail. On the third day, after further attempts with pulleys, hooks and other appliances, and various manipulations, enlarging the wound and rotating the piece of wood, it was at last withdrawn, and found to be considerably swollen by the absorption of moisture from the body, to which circumstance its fixidity was imputed. The coccyx was found broken, the rectum torn, besides an immense laceration of the integuments and muscles. There was retention of urine, but no paralysis of the inferior parts. The portion entered was eight inches and five eighths in length, one and five eighths in breadth and one and an eighth in thick-

ness. The condition of the patient, eight days afterwards, was reported as very satisfactory.

A third case is reported in *La Lancette Française*, which also occurred by a fall from a cherry tree upon a vine trellis; but the detailsare meagre, and the result not given.

Scaruffi, in the *Gaz. Toscana delle Sc. Med-fisiche*, June, 1844, reports a most remarkable case, the patient being five months gone in pregnancy. She was aged 24. She fell from a tree upon a stake, which entered at the inferior edge of the superior third of the thigh, passed upwards and backwards, and was felt in the left lumbar region. In the efforts to pull it out, it was broken off seven inches within the outer wound. An incision was made in the lumbar region, and after some difficulty in disengaging it from the two lower ribs, it was extracted. She aborted about five hours after the operation, and great reaction set in, but she did well. The two wounds, of entrance and exit, were seventeen inches apart.

Another case is recorded in the *Ann. de la Soc. de Med.* by Bessems. A lad, aged 14, fell on a blunt iron spindle a foot long, which entered at the buttock and came out near the navel. He did very well.

Another still more remarkable case was well impressed upon Dr. C.'s memory, but he could not recall where it is recorded. It resembled the case reported to the Society. A girl slid off a hayrick upon a pitchfork, which entered the vulva, and, passing up, broke the united cartilage of the 6th and 7th ribs.

Oct. 27th.—*Ovariotomy.* Dr. Gay reported the case.

The patient, A. L., was aged 26; unmarried; a domestic; born in Ireland. Her health had been generally good until about a year ago, when she was for some time troubled with a sensation of sinking at the stomach, occasional vomiting of food and feeling of languor, from which she recovered in the fall.

In January, 1856, while engaged in washing, she got much heated and put off part of her clothing, and was afterwards exposed to the cold, the catamenia being present at the time. During the night she was taken with soreness and swelling of the abdomen, hoarseness and headache. The swelling subsided in the upper part of the abdomen, but continued in the lower part. In a few weeks afterwards she noticed a resisting body in the lower abdomen, which continued to increase till the present time, although slowly of late, with occasional sharp pains and tenderness on deep pressure. The catamenia have always been regular and sufficient. There was a slight show on the morning of the operation, which ceased altogether in about an hour. The urine had been rather scanty and dark colored, but there had been no trouble or unnatural frequency in passing it. Appetite pretty good. At the time of her entrance at the Hospital, July 12th, 1856, the circumference of the abdomen, three inches below the umbilicus, was 33 inches. The tumor was felt distinctly by Dr. Storer, to the right of the median line, movable and surrounded by a liquid, supposed to be ascitic.

The patient was transferred from the medical department for an examination, and operation, if deemed advisable. At that time there was considerable distension and prominence of the abdomen up to a line level with the umbilicus, looking like one six or seven months advanced in pregnancy. This fulness was owing partly to the fluid, supposed, of course, to be ascitic. A little to the right of the median line, and just above the os pubis, was felt on deep pressure, which was not followed by any pain or soreness, a

large, round, hard and movable tumor, partly in the abdominal and partly in the pelvic cavity, elastic, but still not giving a feel of fluctuation. As well as the patient could remember, the position of the tumor was always the same. It could be easily moved from the right iliac, over to the left lumbar, region, and upwards above the umbilicus. This extensive motion seemed to preclude the existence of any adhesions between the anterior surface of the tumor and the abdominal walls. The adhesions at the base of the tumor were also supposed, for the same reason, and from the indications obtained by a rectal and vaginal examination, to be slight. There was none of the rubbing or creaking sound, symptomatic of peritonitis. The diagnosis rested between a pure, solid ovarian tumor, and a fibrous tumor of the uterus. On a *vaginal* examination, the *os uteri* was found easily within reach of the finger, of natural size, and turned to the left side. The cervix was of usual length, and the feeling was, as far as the finger could go, that the body of the uterus was not enlarged, and was freely movable to a certain extent independent of the tumor; that is to say, that pressure and motion to the uterus, through the cervix, did not give any appreciable motion to the tumor. On moving the tumor with one hand while the finger of the other hand touched the uterus through the vagina, no more motion was communicated to the uterus, than might be expected from any body of that size, whether connected with the ovary or by a small pedicle with the uterus; and not seeming to be enough for a growth continuous with the uterus, or closely and firmly connected with it. On moving the tumor laterally, some slight downward pressure was almost necessarily imparted to it and to the uterus, and with it a slight motion. The presence of so large a quantity of abdominal fluid did not allow that thorough manipulation of the tumor, which its absence would have permitted. This helped to obscure and complicate the diagnosis. There was a feeling that the uterus could be moved without giving any motion to the tumor, and that the uterus to a certain extent moved independent of the tumor; but motion of the tumor seemed to move the uterus slightly by dragging or pressure. Scarcely any information was gained by a *rectal* examination.

*Ballottement* was decidedly present, though this is usually denied. The present instance was particularly favorable for ballottement, as there was a moderately heavy, movable tumor, of the size of a child's head or larger, floating in a liquid, which on being pressed upward while the patient was in the erect posture, immediately fell down upon the finger, precisely similar to the fœtus in utero. There does not seem to be any sufficiently good reason for its not being present in nearly all ovarian growths, at a certain period, and also in pediculated tumors of the uterus. There must be a certain amount of weight and fulness of the cyst, mobility, and freedom from adhesion, to render ballottement appreciable. The degree of rising and falling of the tumor will be measured by the presence or absence of one or more of these, and also by the length of the pedicle. Other circumstances being equal, any abdominal fluid will favor it. Ballottement would be next to impossible if there were firm and extensive adhesions, or if the abdominal cavity were filled by the tumor, as in that case there would be little or no mobility, though at the same time there might be no adhesions—(adhesions may and do limit the motion of a tumor in that region, while the absence of mobility may be, and is, owing to a different cause)—or if there were a large cyst, with a small amount of liquid in it. There does not seem to be any reason for limiting the symptom of ballottement to pregnancy. Of course the tumor must be within good reach of the finger.

The *uterine sound* was passed into the uterus, which was found to be of natural length, with the fundus turned to the right ilium. Neither the fundus nor the extremity of the sound could be felt through the abdominal walls above the pubis, for the very good reason that the whole tumor lay directly upon the *anterior* surface of the uterus. According to Dr. Simpson this is a very important element in the diagnosis, for he says, "*if the sound shows the tumor to lie on the anterior surface of the uterus, the disease may be considered as certainly not ovarian.*" No cause can be assigned for the constant position of the tumor (being the left ovary), to the right of the median line, and upon the anterior surface of the uterus. But the fact remains, and another case may present the same peculiarity. The anterior position of an ovarian tumor with regard to the uterus does not seem at all improbable, until the tumor has entirely passed out of the pelvic cavity. The uterus being fixed by the sound, the motion to the tumor from its natural position a little more to the right side, gave the feeling of pressing down the uterus, and also the idea that the uterus was intimately connected with the tumor, if it was not wedged down by it; but on gentle movement of the tumor to the left side, no motion was felt in the uterus till the tumor was in a certain position, when the handle of the sound turned and moved towards the right thigh. There seemed a motion in the tumor to a certain extent to the left side, without a corresponding one in the uterus. If it had been a fibrous tumor, with a broad and short attachment to the uterus, the motion given to it must have been instantly and decidedly felt in the uterus; but if there was a small, long pedicle, or if it was ovarian, then the motion would not have been felt so immediately nor so decidedly. In the natural position, no motion could be given by the sound to the uterus towards the left side, or even the median line. A heavy obstacle prevented it. But a slight lateral motion was perceptible towards the right side, as obtained by the finger alone, in the vaginal examination, without any corresponding motion of the tumor. The fulness of the abdomen prevented the very important method of raising upwards the tumor as far as possible, and observing the action upon the uterus. The independent motion, to a certain extent, of the uterus, seemed to show that it was either a pure ovarian tumor, or, if a fibrous tumor, that it was attached to the uterus by a small, long pedicle, and consequently no contra-indication to an operation.

The diagnostic information obtained from the uterine sound, was not so valuable in this particular case, as it undoubtedly has been in many others. Exceptional cases may arise to puzzle every manipulating process. Take the case of an ovarian tumor, with the Fallopian tube attached firmly throughout its entire length to some portion of the tumor; or the case of an elongated uterus, firmly and extensively adherent to an ovarian growth; what is there to help us to decide whether it is a fibrous or ovarian disease, for the motion in one must be almost simultaneous with that in the other? The uterine cavity, usually normal in ovarian growths, may be elongated, as in fibrous tumors, of which three instances can now be recalled, where the cavity was four or five inches long, and even longer. In these cases of extensive and firm adhesion between the uterus and the tumor, the difficulty of reaching the os uteri increases with the growth of the tumor, so that the os may be beyond the reach of the finger. The chances of success in operative proceedings, when the os uteri cannot be reached by the finger, are unfavorable. While the patient was in the medical department, she daily went about the ward, without any special treatment, and gave no one the slightest cause to suspect anything like peritonitis.

A surgical consultation was held, Saturday, Sept. 20th, 1856. There was another on Sunday, when the uterine sound was used. On Monday she had some soreness, but no pain. No complaint was made on Tuesday or Wednesday.

These remarks are made in connection with the peritonitis found at the time of the operation.

The day before the operation, an ounce of castor oil was given; and on the morning of the operation, light diet and an enema.

*Operation.*—Sept. 24th, the temperature was at about 74 degrees in the room. The tumor being pushed to the median line, an incision about six inches long was made from just below the umbilicus to the os pubis, dividing carefully every thing down to the peritoneum. An opening was made in this, and a large quantity of gelatinous fluid, resembling the white of an egg, escaped from the abdominal cavity, evidently ovarian in its character. The quantity was supposed to be about two gallons, which was much greater than was anticipated by any one. A trocar would have been used, if this amount had been expected. It will be remembered that fluid was apparent in the abdomen at the time of the patient's entrance at the Hospital in July, and Dr. Storer, and every one who examined her, had no reason to suspect any thing but a peritoneal effusion. At the operation, nothing resembling the peritoneal effusion was observed.

When the fluid was entirely removed, the anterior surface of the tumor was brought into view, exposing a circular, ragged opening, of the size of a half-dollar, through which the abdominal fluid, at some former period, had flowed. It is perhaps somewhat singular that the ragged condition of the opening should have remained so long. When this rupture occurred, or what produced it, cannot be ascertained.

The tumor itself was then brought out of the wound, and was found to be the left ovary attached to the broad ligament, by a thin, ribbon-like pedicle or base, nearly three inches wide, and lying upon the *anterior* surface of the uterus, which was found perfectly normal. The left Fallopian tube, for about three inches, was closely adherent to the base of the tumor. A double ligature was then passed through the centre of the pedicle, and tied each way. A single one was then placed below these, and the tumor removed. Not a single vessel was tied. The part which remained with the ligature attached, was too short to be retained at the external wound. The peritoneal surface of the intestines and abdominal walls was found inflamed, with here and there deposits of soft, recent, milky-white lymph. No adhesions were found at any point. The wound was brought together and supported by six sutures, and adhesive straps between them. Lukewarm-water compresses were applied, covered with oiled silk. No swathe or bandage seemed necessary. Directions were given to keep her sufficiently under the influence of opium, to be given in grain-doses every few hours, or oftener if necessary. *Externally*, the tumor was smooth, regular and shining; twenty inches in circumference and four inches through from its anterior to posterior surface; *internally*, it was composed of a number of small cysts, the walls of which were of different degrees of thickness and solidity. The *right* lateral half of the tumor was decidedly twice as *heavy* as the left, which may have some reference to the constant position of the tumor.

*Sept.* 25.—During the night there was some retching, but no vomiting. Pulse 100, small. Slight flatus. No pain nor soreness. Some hiccough at 2, P. M. At 6, P. M., complained of feeling cold. Some dyspnœa. Pulse

120. Flatus increased. Occasional vomiting. During the straining, a large quantity of a watery liquid was forced through the upper part of the wound. In the night, for the first time, she suffered pain, and gradually failing, died at 2, A. M., Sept. 26th, about thirty-eight hours after the operation.

On a *post-mortem* examination, the external wound was found firmly united by the first intention, except a small opening at the upper extremity, which was made during the vomiting. The peritoneum was inflamed throughout, and the intestines were all glued together in one mass. The ligature was secure around the pedicle, and there was a tablespoonful or more of a semi-purulent liquid in the cavity of the pelvis. There was no sign of any hæmorrhage.

The peritonitis found at the operation was unexpected, and unquestionably hastened the fatal termination.

After the use of the uterine sound, particularly if in consultation with two or three persons, Dr. Gay remarked that he should decidedly recommend that an interval of a week or ten days should elapse previous to an operation, and also that a frequent external manipulation, by one or more, persons should be avoided.

Dr. Storer said that he thought the result in this case, which seemed a peculiarly favorable one, would cause a greater unwillingness to operate in these cases than had heretofore existed. He questioned whether the peritonitis might not have been induced by the numerous examinations of the patient at the time of the consultation.

Dr. Cabot saw no reason why the ill success of this operation should influence surgeons in any future cases, as the probable cause of death was peritonitis, the presence of which was not suspected; he added that statistics show the operation to be justifiable.

Dr. Bowditch remarked upon the unfavorable result of this operation in hospital patients as compared with private cases, and questioned whether the difference might not be in a degree owing to the greater number of examinations to which the former are subjected.

Dr. Cabot, in reply, was inclined to attribute the difference rather to the fact that few favorable cases are met with at the Hospital.

Dr. Minot questioned whether the air of the Hospital might not aid in producing unfavorable results in such cases.

Oct. 27th.—*Ovarian Disease.* Dr. S. D. Townsend reported the case.

The patient, F. M. S., was single, aged 21 years, born in Maine, and entered the Hospital, Sept. 16th, 1856. She had been generally healthy until November, 1854, twenty-two months since, when she wet her feet during a menstrual period. This was followed the next day by pain in the right iliac region, aggravated on pressure, but unaccompanied by swelling. She kept at work all the time, though somewhat feverish for a day or two. Nothing abnormal was [illegible] until March, 1855, four months after, when "an abdominal tumor was discovered, which at first occupied the pubic region only, but gradually extended itself in every direction, principally upwards to the right, so that it seems now adherent to the liver. It is also forcing its way into the pelvic cavity. The peritoneal cavity has been distended with serous fluid almost from the first. The patient was tapped in October last, for the first time, twenty two quarts were drawn off at that time, since which she has been able to go only eight or ten weeks without tapping." (*Extract from Dr. E. S. Palmer's letter.*) She had been tap-

ped six times, and sixty quarts had been removed. The patient stated her general health to have been good. On examination of the abdomen, it was found distended with fluid, and measured in line of umbilicus 33 inches in circumference. A firm tumor could be felt extending from near the umbilicus to the lower ribs, confined principally to the right of the median line, and being most prominent near the umbilicus, where also a circumscribed fluctuation, as of a cyst, could be detected. The tumor was movable, and seemed to have firm attachments above. The catamenia had not appeared since March.

Sept. 20th.—To-day an attempt was made to pass the uterine sound, but the os uteri could not be reached by the finger.

24th.—Patient having fully decided to undergo an operation, after a candid statement to her of the unfavorable nature of her case, and the improbability of a successful result, was etherized in her own room, carried into the operating-theatre (previously warmed to 77 deg.) and placed upon the table. An incision was then made from the umbilicus to the pubes, the dissection carried down to the peritoneal sac, and three basins full of fluid drawn off through a large canula. This fluid was of two distinct characters. That from the lower cyst, whose position will be mentioned hereafter, was the glairy, viscid, ovarian fluid; while the other was of a dark chocolate color. When the abdomen had been as completely evacuated as possible, the peritoneum was laid open the whole length of the previous incision, and the tumor exposed. The mass of the tumor was a solid ovarian growth. On its upper surface were two cysts; the one lying above the line of the umbilicus, and containing the dark fluid mentioned above; the other below, and to the right of the former, containing the true ovarian secretion. Adhesions were seen between the tumor and the abdominal parietes, and a manual examination revealed such an extent of adherent surface that it was considered out of the question to proceed to the removal of the growth. The wound was immediately brought together by sutures and adhesive plaster, the patient was put to bed in a room which had been previously warmed, and a broad swathe was applied to the abdomen.

One drachm of the solution of morphia was ordered every two hours, until she should be under its influence; the urine to be drawn off by the catheter, and no food to be taken except a little tea—cold, if possible.

At 8, P. M., complained that her bowels felt as if they had been torn. Nausea and vomiting, owing perhaps in part to the ether. Had taken morphia three times since the operation. Thirsty. No headache. Skin rather dry. Pulse 120. Midnight, had a paroxysm of pain; but while leeches were being applied to abdomen, the pain abated, and she fell asleep.

26th.—Has had little nausea and no vomiting from half past 2 o'clock, A. M., yesterday, until 5 o'clock this morning, since which time it has been distressing. Some tympanitis of right side, more than left. Head cool; extremities warm; tongue thickly coated; pulse 124. Iced soda-water for drink.

27th.—Nausea relieved. Desires a change in diet. May have beef-tea.

28th.—Nausea recurred last night, and while vomiting, she expelled a lumbricus, six inches in length.

Oct. 10th.—The abdomen was so much distended with fluid as to separate the lips of the wound two inches. *Paracentesis abdominis* was necessary, to prevent the abdomen bursting open. On introducing a long, curved trocar, the chocolate-colored fluid appeared. The *canula* not being sufficiently large to allow the fluid to escape, a short straight canula was intro-

dated, which drew off the lighter, ovarian fluid only. Thirteen pints were removed, with much relief to the patient.

At the evening visit she was found in a semi-comatose condition.

15th.—At the morning visit the patient was moribund, and died at half past eleven—twenty-two days after the operation.

*Autopsy*, by Dr. Ellis.

The edges of the skin had separated, but a layer of tissue continuous with the peritoneum covered the cyst. The latter adhered, though not very strongly, to the peritoneum, in the sides, and over the lower, anterior half the uniting tissue in front being of a chocolate color. In the right lumbar region, posteriorly, the attachment was very firm, and apparently formed by the thickened peritoneum, beneath which the mass had moved upwards, after separating the layers of the broad ligament. The intestines, with the exception of the descending colon, all lay above the tumor, the rectum occupying the right hypochondrium. They adhered to the under surface of the liver and diaphragm. In the peritoneal cavity were two pints of pus, but a portion of this probably escaped from an opening in the cyst. On pressure, fluid flowed freely from the two openings made by the trocar.

The enlarged right ovary, when partially collapsed, was thirteen inches in diameter. It consisted of one large sac, into which three more or less solid tumors projected. This sac, the walls of which averaged about a line in thickness, contained a large quantity of thin, offensive pus. The inner surface was every where covered with patches of lymph. The smallest of the tumors projecting into it was about an inch and a half in diameter, and quite dark; the second, three and a half inches in diameter and an inch in thickness; the largest, eight inches in diameter, and between three and four in thickness. They were composed of numerous cysts, with vascular walls, and containing a white or yellowish gelatinous, honey-like, or albuminous material.

The Fallopian tube, attached to the surface of the tumor, was eight inches in length. The uterus itself was five inches in length, and otherwise deformed by the traction upon the right superior angle. Its canal was continuous with that of the vagina, which was four inches and a half in length, and gradually narrowed until the os was reached, the lips of the latter having been almost obliterated. The appendages on the left side were not remarkable.

The head was not examined.

Near the apex of the left lung were several nodules of yellow, caseous, tuberculous matter, from a quarter to half an inch in diameter. Several masses of similar size occupied the corresponding part of the right lung. The organs were in other respects normal.

The right ureter was an inch and a half in circumference, and the pelvis of the kidney considerably dilated. The other viscera were normal.

The diagnosis in this case, that the enlargement was cystic, as evinced in the rectum, had proved correct. Several instances of the use of this organ measuring seven inches in length.

The first two of the three cases of cyst in which we had treated successfully by tapping and injecting iodine were [illegible]. The first was that of a woman who had married two years before, the disease being of ten years duration. The cyst was of the size of a large [illegible]. There was no sign of peritoneal inflammation. On making an incision on the part of the tumor, the cavity was found not adhering to the wound.

It was immediately replaced, and there had since been a discharge of pus to the amount of a tablespoonful in a day. Dr. Gay saw no reason why the case should not go on favorably.

The second case was of four years' duration; the disease having been first noticed in the summer of 1851.

The patient, when first tapped, Dec. 23d, 1855, was almost moribund, and was not expected to live through the night. The operation was done to relieve the great dyspnœa; twenty-eight and a half pints of dark-colored fluid, like thick molasses, having been drawn off. The second tapping was on Feb. 2d, 1856. Twenty pints of coffee-colored liquid were drawn off, and the canula left in. The ovarian liquid flowed from the canula *two weeks*, when it became mixed with pus. The stopper was removed once in 24 hours. The greatest quantity of pus was a little over a pint in 24 hours. The discharge of pus ceased July 30th, 1856, when the canula was permanently removed.

October, 1856.—The contracted cyst can be felt in the right pubic region, like a piece of thick gristle, as large as half the hand. The patient's health is good, but not so strong as before her sickness.

Dr. Townsend remarked that he had tried this method without success.

Oct. 27th.—*Amputation of the Finger by a Finger-ring.* Dr. Jackson showed the specimen, recently received from Dr. J. B. King, of Nantucket, with the following history of the case.

A man aged 40, being at work on the upper deck of a steamboat, on the 16th of September last, fell off, and, in his descent, a ring that he had upon the little finger of his right hand caught on the head of a nail, and completely amputated the finger, which was left, with the ring upon it, hanging upon the nail; ten inches of the flexor tendon were also drawn out, and hung from the finger. After the accident, he walked to Dr. K.'s office to have his wound dressed; and the middle phalanx, being entirely denuded of integument, was removed from the stump, from which it protruded, On the 22d, the stump was dressed, and the patient was doing very well, there being very little pain or soreness in the stump or in the track of the tendon. The ring, which has not been removed from the torn off finger, is perfectly plain and nearly one fourth of an inch in width. The specimen is in the College Cabinet.

Dr. J. remarked that this was the second case which had been reported to the Society, of amputation of a finger by a ring; and although such cases must have occurred elsewhere, he was not aware that any such had been reported.

An account of the first case has already been published by Dr. Slade, in whose practice it occurred in this city. (See *Boston Medical and Surgical Journal*, vol. lii., p. 17.)

In 1845, Dr. Coale also reported to the Society a very nearly similar case, an account of which was published in the Catalogue of the Society's Cabinet. The skin and nail were torn entirely off, but the bone was not injured; here again, as in the two other cases, it was the little finger that suffered, and as in the second case it was a plain gold ring that caused the injury, and it was owing to the ring being caught by a hook.

Dr. Jackson remarked further, that Dr. K.'s case was the fourth that had occurred in this vicinity, of the tearing off of a finger being complicated with the drawing out of a tendon; a complication that seems to be attended with very little additional pain or soreness.

Nov. 10th.—*Deposit of Carbon in the Inguinal Glands of a Tattooed Subject.* Dr. HODGES showed the glands, taken from a dissecting-room subject.

Examined by Dr. BACON, these dark-colored inguinal glands exhibited, under the microscope, irregular patches of perfectly opaque, black granules, thickly distributed through their substance. The granules consist of *carbon*, and not of melanotic pigment. In the extensive tattooing practised in this instance, many of the superficial lymphatics must have been opened, and particles of the carbonaceous pigment, which is rubbed into the punctures, conveyed to the neighboring glands and there deposited. Portions of the lymphatic vessels contained coloring matter, rendering them visible as dark lines.

Nov. 10th.—*Hæmorrhagic Diathesis.* Dr. W. E. TOWNSEND reported the case.

Mrs. F., a lady in good health, was delivered on the 15th of last September of an apparently healthy infant of average size and weight; she had a very easy labor and a rapid recovery; her milk was sufficient in quantity, and of so nutritive a quality that the boy, after the first week, gained half a pound weekly. The cord came away at the proper time, and the umbilicus healed readily; the child slept well and nursed well. Its discharges were natural in appearance till Oct. 28th, six weeks after its birth, when they began to be greenish. At this time it appeared languid and somewhat uneasy, but was much relieved by a dose of magnesia, and seemed well again, its discharges again becoming natural. On Wednesday, Nov. 5th, a week afterwards, the uneasiness and distress in its bowels returned, for which some tincture of anise and afterwards castor oil was administered. Thursday morning, Nov. 6th, a spot of blood was observed on its diaper, which was found to have come from the skin of the scrotum, which looked now thin and paper-like. A mixture of tannin and impure carbonate of zinc was applied, which held this in check, though it never entirely stopped it. In the course of the same forenoon the child bled a little from the nose, and in the afternoon threw up a little blood, looking as though part of the hæmorrhage from the nose had been swallowed. This was all the blood the child lost, not amounting in all to one ounce, yet it rapidly became anæmic; its bowels were much distended with flatus, its discharges were entirely green, not in the least bloody, and great uneasiness and distress supervened; it nursed well, except when under the effect of slight anodynes, yet it rapidly failed. On Friday, the 7th, small spots appeared under the skin on the feet and legs, not distinct like purpura, but pale and scarcely visible. On Saturday, the 8th, there was some swelling of the feet and hands; the breathing grew very rapid, and on Sunday, at 4, A. M., it died, very quietly, and without convulsions at any time. The tincture of muriate of iron was used in small doses frequently, from the beginning of the last attack. Five hours after death, the child looked blanched, not emaciated, and generally yellow.

Mrs. F. has had four children. The first, born six or seven years since, died at the age of nineteen months from phthisis following whooping cough; the second was born in the country, and at birth presented an unhealthy appearance, the skin of the hands and feet looking as if parboiled; this child died on the twelfth day, from hæmorrhage from the gums, mouth, bowels and skin. The third child was born in Boston, on the 30th of January, 1854, and died March 5th, having been attacked February 23d, or three and a half weeks from its birth, in precisely the same manner as this

last child, first with green discharges from the bowels, then with oozing of blood from the same part of the scrotum. This third child was carefully examined by Drs. Shaw and Townsend, and nothing abnormal was discovered except some enlargement of the liver. Since the death of the third child, Mrs. F. has circumnavigated the globe with her husband, who is a ship-master, and has been in perfect health, never feeling better than when carrying this last child. Her husband is a stout, hearty man, who enjoys uninterrupted health, and belongs to a healthy and long-lived family. It is a curious fact that the first infant had none of the hæmorrhagic diathesis which belonged to the three last.

Nov. 24th.—*Annular Stricture of the Large Intestine, and its connection with Ileus.*—Case reported by Dr. J. B. S. Jackson.

The patient was a single woman, 34 years of age, and of good general health. Last April, whilst on a passage from New Orleans, she was attacked with obstinate constipation, pain in the bowels, nausea and vomiting; relieved in ten days, by very active cathartics. In June, she had a similar attack. During the fourth week of July, she was attacked still more severely; and from that time until her death, was never relieved. On the 27th of August, she entered the Massachusetts General Hospital, tortured by the griping, twisting pain in the abdomen; having had no natural discharge from the time of the attack, and but very slight effect from repeated enemata; perfect anorexia, and vomiting whenever she took the slightest thing into the stomach. On the day after her admission, she took, in divided doses, forty grains of the compound extract of colocynth and four drops of croton oil; and on Sept. 3d, she had, for the first time, a very small scybalous discharge, having meanwhile, daily, used more or less cathartic medicine or enemata. During the following week, the bowels were rather more free, and occasionally, through September, a small quantity of hardened fæces was brought away by large enemata. On the 1st of October, the patient came under the care of Dr. J. The abdomen was then very large, and generally very tense; portions of the intestine being sometimes so distended by flatus, as to feel almost like solid tumors, in a few moments becoming relaxed under the hand, as the spasm of the muscular fibres yielded. From this time the symptoms continued essentially the same. After the 13th of October, no cathartic medicine was given, although occasionally a little fæcal matter was brought away by an enema; during the last seventeen days, however, nothing whatever passed the bowels. The system bore up remarkably well until the last week, when she sank rapidly, and died on the 22d of November.

Oct. 27th, an examination was made by the vagina and rectum, and a tumor discovered nearly filling the cavity of the pelvis. This was evidently a fibrous tumor of the uterus; and it was thought possible that by pressure against the rectum it might cause the symptoms above described; though Dr. J. had never heard of such an effect. The catamenia, for the last ten years, had occurred every two to four weeks, and were preceded by much pain in the region of the uterus, and bearing down; previously healthy; this change being regarded as confirmatory of the above diagnosis. On dissection, the uterus itself was considerably enlarged, and upon each side, in the body of the organ, there was what was originally a fibrous tumor, more than two inches in diameter, but now completely disorganized.

The stricture of the intestine was fifteen inches from the anus, strictly annular, and looking almost as if girt by a string; firm, but not of scir-

rhous density, and not adherent externally. The large intestine above the stricture was, throughout, greatly distended, and contained an immense quantity of soft fæces; the small intestine was also very much distended by thin fæces and gas. Below the stricture, the intestine was of about the usual size. The parts having been removed and washed out, a portion of the intestine above the stricture was filled with water, but not a drop passed through; it was then inflated, under water, but it was not until several trials had been made, and with considerable force, that a little air could be made to pass through; nor was this last result obtained subsequently. The intestine having been inverted, there was found, at or just above the stricture, a well-defined, somewhat deep ulcer, not more than one-fourth of an inch in width, and not at all remarkable in its character, but involving the entire circumference of the intestine. Otherwise the dilated intestine was quite healthy, though the muscular coat was much hypertrophied. The other organs were also healthy.

Dr. J. showed the intestine, which is to be prepared for the College Museum. He was inclined to regard the disease as of a cancerous nature, and referred to Rokitansky's remarks. He also gave an analysis of five other cases of annular stricture that had come under his observation, as follows:

1. A woman, aged 29; ileus for about four weeks. Stricture at junction of arch and descending colon; and so complete that water would not run through. Inflammation, ulceration and perforation of intestine above the stricture.

2. A man, aged 60; ileus about thirteen days. Stricture 15½ inches from anus; decidedly malignant.

3. A woman, aged 58; ileus thirteen days. Stricture 8 inches from anus; ulceration decidedly cancerous.

4. A man, aged 30; no dejection for thirty days before death. Stricture 5 inches from anus. Specimen not quite fresh when seen, but disease apparently cancerous.

5. A man, aged 67; subject to attacks of colic from one and a half to two years before death. Disease at junction of descending colon and sigmoid flexure. Extensive encephaloid disease of liver and deposit of the same in parietes of the intestine. This was the only case in which any other organ than the intestine was cancerous.

The intestine, in these cases, was not adherent externally, and appeared generally as if girt around with a string, and with more or less greyish discoloration; the inner surface ulcerated, and the whole extent of the disease never exceeded one and a quarter inch, being greater than it appeared to be before the intestine was cut open. The structural change must be slow in its development; and yet it appears, by the above cases, that the disease may be latent, and only manifest itself by a short and fatal attack of ileus; the patient, perhaps, dying as from internal strangulation.

Nov. 24th.—*Obscure Affection of the Stomach, at first supposed Carcinomatous.* Dr. Bigelow read an account of the case.

The patient is a gentleman aged about 60; of active habits and ordinarily good health. For several months previous to his attack he had suffered with indigestion, bad sleep, &c., and had in that time lost 14 pounds of flesh.

Oct. 29th, 1855, finding himself more indisposed than before, he took an operating dose of rhubarb with slight relief. On the 31st, he vomited two quarts of dark, sour, watery fluid; lost his appetite; slept little, and took cathartic pills.

Nov. 1st, he vomited about two quarts of dark-looking fluid, with a tablespoonful of blackish, grumous sediment. In the evening, a like quantity of the same fluid, with the same sediment, was thrown off. Anorexia, nausea, thirst and coated tongue followed.

Nov. 2d, vomited in the morning nearly as much of the same kind of fluid. Dr. B. was then called to visit him, and found him with a pale and sallow countenance; a feeble, but not a rapid, pulse; sense of pain and weight in the epigastrium; and on examination a palpable tumor was discovered in the epigastrium, three or four inches in width, hard, somewhat tender on pressure, and very distinctly defined, pointing somewhat to the right. The fluid shown as the result of the vomiting, resembled dark chocolate, with a sediment like coffee grounds.

In the evening following, the vomiting recurred of the same quantity and character, followed by a restless night with pain and distress.

Nov. 3d.—The vomiting returned, with about half the quantity of blackish, sour fluid. After this, no more vomiting took place till Nov. 6th, when the fluid ejected was lighter and less, and without any grumous sediment. The epigastric tumor had constantly diminished, retreating from the right to the centre, and growing obviously softer.

11th.—The gastric symptoms having greatly diminished, the patient rode out, began to gain strength and natural sleep; had more appetite and tolerance of food.

27th —The health was pretty well established, and no vestige of the tumor could be detected. At the present time, a year since the attack, he states that he has enjoyed better health throughout the summer and fall than he had done for several previous years.

The symptoms of the above case warranted the presumptive diagnosis of carcinomatous or malignant disease. The single element of time was alone wanting to divide the acute from the chronic aspect and interpretation of the case.

Nov. 24th.—*Poisoning from Belladonna Plaster.* Dr. Lyman reported the case.

The patient was a woman aged 29, of a highly nervous temperament, and for several years had been in feeble health with pulmonary symptoms, and had suffered much of late with palpitation, for which, on Sunday, Nov. 6th, was ordered a belladonna plaster, 2 by 4 inches. She was cautioned against wearing it too long at a time. It was applied Sunday evening and removed on Monday morning, the palpitation being quieted. It was applied again on Tuesday and worn all day. Tuesday evening, when she retired, she was advised by her husband to remove it; but deriving comfort from it, she delayed so doing and fell asleep with it on. At 2 o'clock the following morning, Wednesday, 19th, she awoke with severe pain in the top of the head, vomiting, dryness of the fauces, spasmodic action of the muscles of the throat and chest, and an indescribable sensation of sinking. Dr. L. saw her at 6 o'clock. The above symptoms continued, with the exception of vomiting, which had ceased. Her pulse was *quick* and thready; the irides were very much dilated, though contractile; there was no disturbance of vision; the face and eyes were suffused; the extremities cold, the tongue moist, and the skin dry. Spasmodic action and faintness returned every few minutes. There was no exanthematous eruption or disturbance of the bowels or kidneys. Seidlitz powders, sinapisms to the feet and epigastrium, were ordered, together with brandy and strong coffee. At half past nine,

the symptoms were about the same, with the exception that the headache was less. A copious free perspiration occurred, followed by very marked relief. At 5. P. M. the spasmodic action still occurred at intervals, causing much distress; the patient was otherwise better. The pulse was full and tolerably forcible, but ranging as low as from 28 to 32! Skin moist, respiration normal. Neither the bowels nor kidneys having acted, liquid acetate of ammonia was ordered, also an enema and continuance of the stimulus of milk, she had partaken during the afternoon very moderately. The enema caused a free evacuation of the bowels and bladder. During the night, she complained of numbness of the face and inability to raise the lids. She urinated several times, with severe scalding and irritation of the bladder; and slept at intervals after midnight, the pulse ranging from 28 to 42. During Thursday, the symptoms all disappeared, with the exception of the dilated pupils and slow pulse. On Friday morning the irides had recovered their natural appearance, but the pulse, though more full, was still at 28, and intermitting every one, two or three beats. On Saturday evening, the pulse was 52, though quite feeble. She was in good spirits, and sailed with her husband, on Sunday morning, for Port au Prince, where they had previously made arrangements for passing the winter.

Dr. Lyman remarked that he was much in the habit of using this plaster, but he recollected only one instance in which the slightest unpleasant cerebral effect was produced, and that hardly appreciable. He had been since informed, by a very intelligent gentleman, that a precisely similar train of symptoms occurred in the case of his own wife, from the application of a poultice of the leaves to her abdomen, the pulse remaining in this depressed condition for many weeks.

Dr. Bethune said that he had known *atropine* to be absorbed through the skin and produce its characteristic effects.

Dr. Williams mentioned a patient under his care with cataract, who, whenever a solution of atropine, in the proportion of five grains to the ounce, was applied to the conjunctiva, had dryness of the fauces and nausea.

Nov. 24th.—*Granular Disease of the Kidneys; Hypertrophy of the left Ventricle, &c.* Dr. Gorton reported the case.

The patient, Mrs. H., was 48 years of age, the mother of two children, and generally healthy. She had been reported to suffer from displacement of the womb, for which she had been treated both in this country and abroad; for the last two years, she had had profuse menstruation and consequent anæmia, and during the same period had had palpitation and dyspnœa, often amounting to orthopnœa, preventing, in a great degree, walking and going up stairs, and steadily increasing in intensity. The action of the heart was rapid and diffused; the sound muffled: no valvular murmur, and the pulse very small. Ten months since she began to have nausea and loss of appetite, from the dread of vomiting. She was not distressed by food, but the mere opening of the mouth to receive food, or the use of a gargle or toothbrush, provoked nausea. For the last six months, she had had more or less œdema, which finally became very troublesome; the skin, also, assumed a peculiar rusty, blotched appearance.

Enlargement of the left ventricle, probably passive: organic disease of the stomach, probably malignant, and perhaps disease of the supra-renal capsules, were diagnosticated. All the symptoms gradually increased, and she seemed about to die of simple exhaustion from want of sleep, food and exercise; she had for a few days passed some fresh blood with the fæces,

and a week before death, had an incessant, teasing cough, which lasted two days and nights, with slight mucous expectoration and a few streaks of blood.

Nov. 16th.—She had enjoyed a remarkably comfortable night. On attempting to rise in the morning, she had a sudden pain in the right hypochondrium, with a sensation as if dying; she gradually revived under stimulants, and lay quiet until noon, when on again attempting to rise, she was affected in a similar manner, and in half an hour died.

*Autopsy.*—Abundance of superficial fat; extensive effusion within *pleura;* surface of upper lobe of *right lung* presented a livid, conical eminence, about three inches in diameter, which on being cut through, was found to be circumscribed, an inch deep, and produced by an apoplexy of the part. *Heart* greatly enlarged, from hypertrophy of *left ventricle; valves* healthy. *Peritoneal cavity* filled with bloody fluid mingled with solid matter, having a strong fæcal odor; a slit, one third of an inch in extent, was discovered just below the *pylorus*, through which the matters had issued; within the intestine was a simple ulcer, an inch in extent, burrowing somewhat under the pyloric valve. *Kidneys* contracted; their surface and substance extensively granulated. *Supra-renal capsules* healthy. No lymph or adhesions of *peritoneum*. *Uterus* healthy and in proper position. The points worthy of notice are: 1. The apoplexy of a circumscribed portion of the lung, and its connection with the incessant dry cough; indeed, there were traces of a similar lesion which was doubtless connected with a similar attack of cough about six weeks previously. 2. The coincidence of hypertrophy of the heart and Bright's disease, which has been often noticed. 3. The nausea connected with the ulcer *below* the pylorus. 4. The non-existence of disease of the supra-renal capsules, which might have been suspected from the discoloration of the skin. 5. The healthy condition and normal position of the womb. 6. The absence of peritoneal lesion, showing the recent existence of the perforation. 7. The fact that two other members of the family had died of cardiac disease, in one of whom Bright's disease was also diagnosticated.

Nov. 24th.—*Cystic Tumors.* Dr. Townsend showed two small tumors recently removed by him.

The first was from the posterior nares of a young girl, who thought it a polypus. It was elongated and dropped down behind the uvula. It was examined by Dr. H. J. Bigelow, who stated it "to be of a coarse fibroid structure, with some tendency to a circular disposition of its fibres, and lined with a structureless membrane." Dr. B. supposed it to be the result of the development of a cyst in a fibrous polypus of the nose, and of rare occurrence.

The other tumor exhibited was from beneath the tendon, near the metatarsal bone of the great toe. It was of several years' growth, and had caused the patient much pain and trouble. The following is the result of Dr. Bigelow's examination.

"The specimen from the foot is remarkable in presenting a minutely lobulated surface on section, which, under the microscope, exhibits the lobulated structure of hypertrophied gland. The lobules are made up of uniform nuclei of small size, with some cells and fibre. One cyst is fibrous."

Nov. 24th.—*Hæmorrhage during Pregnancy.* Dr. Lyman reported the case.

The patient, aged 22, was married at 17. She had miscarried once, and

had one delivery at full term, the last being a case of arm presentation, for which version was employed, and the head delivered by instruments at the end of 48 hours of labor. Child dead.

Dr. L. first saw her Nov. 17th, she being at full term so far as she could judge. Had been under homœopathic care, and after consultation the womb was pronounced to be displaced! An examination revealed nothing abnormal, with the exception of very general œdema of the extremities. She stated that in April last, she had very severe hæmorrhage. In June, she had a discharge of bright red blood, and this continued almost daily until the middle of October. No pains accompanying this hæmorrhage, she thought her health rather better during the flow. For six weeks she had had slight pains at intervals, they being more severe the past fortnight, and resembling labor pains, but without hæmorrhage. Previous to pregnancy the menses were regular. A full opiate quieted the pains, and three days after (Nov. 20) she was delivered, after a perfectly natural labor of fourteen hours, of a boy weighing 9¼ pounds.

Dr. Coale, in the course of his practice, had had several cases of hæmorrhage during pregnancy. The first which he remarked particularly, was in a small, spare, pale-faced woman, who three years afterwards died of phthisis. She always menstruated regularly, and in proper quantity, for the first five months of pregnancy. On this occasion she had done so, and between the fourth and fifth month, according to her own calculation, was seized with a hæmorrhage so profuse that she had to be laid supine, with the hips elevated, and there seemed to be great danger of her dying from loss of blood. She thus continued for forty-eight hours, when she began to rally and was left sufficiently convalescent. Between four and five months afterwards, to Dr. C.'s great surprise, she was delivered of a healthy, though somewhat small child, which now, ten years after, is a very hearty one.

In another instance, a patient, who had borne six children, thought she was pregnant, but, contrary to her usual custom, continued to menstruate, with this peculiarity, that the flow never entirely ceased. At times it was so profuse as to render her very feeble, and make her countenance pale and anæmic. Dismissing at once the idea of pregnancy under these circumstances, polypus was suspected, and a day fixed for an examination. In the mean time, however, the hæmorrhage ceased, and motion was distinctly felt by the patient. Four months afterwards, she was confined with a healthy child. The birth was so speedy as to be completed before Dr. C. arrived, and the placenta had been disposed of.

In another case of a rather spare primipara, there were three hæmorrhages during pregnancy, each without evident cause, without pain, sudden and bright, the loss each time being from one to two ounces. Placenta prævia was suspected, but the suspicion not verified by the labor, which was perfectly natural and favorable in every respect.

Dr. Parkman also alluded to a case which occurred three or four years since, in which the flow was very profuse. He feared *placenta prævia*, but the patient went her full time, and had a natural labor.

Dr. Sch[illegible] Reported by Dr. Jackson.

A healthy [illegible] entered the Massachusetts General Hospital Nov. 23d, under the care of Dr. J. with the general, and well-marked appearance of typhoid fever. The only cerebral affection was cerebral; the patient was unable to give an account of herself, but was said to have been sick for ten days. The catamenia were present, and continued so long as she

lived. The peculiarity of her case, in regard to the symptoms, was that there was no indication of any other disease than typhoid fever; and yet there never were seen any rose spots, there never was epistaxis, not even before her admission into the Hospital; the abdomen was perfectly natural, and there never was any diarrhœa. After her admission the cerebral symptoms became more developed; the delirium, though generally low and muttering, was sometimes quite active; the urine, which was quite abundant, was discharged involuntarily; so imperfectly that the catheter was several times used. Half an ounce of castor oil having been given on the 26th, she had one dejection, and that was involuntary. On the morning of the 27th, there was some subsultus, but her symptoms generally were not decidedly worse; at 2 P. M., however, she rather suddenly fell off, and died at 6 o'clock.

On dissection, one ulcer only was found in the small intestine; that was 7½ inches from the cœcal valve, a line and a half or more in diameter, and situated apparently in one of the small, irregular Peyer's patches, of which there were certainly some in the neighborhood; but in regard to the very important pathological point of the situation of this ulcer, there was a question. Peyer's patches were certainly not otherwise remarkable. The solitary glands were considerably developed throughout the small intestine, and particularly at the lower part. Brunner's glands were also developed, and the mucous membrane of the duodenum was reddened. The spleen was rather soft, but not remarkable as to size. There was also cadaveric softening of the stomach, softening of the septum lucidum of the brain, and traces of tubercular disease of the lungs; no other disease being found in any part of the body; meningitis not being overlooked. In connection with the catamenia, the uterus was found congested, and its inner surface smeared with a bloody secretion.

Dr. J. remarked that this case seemed to be one of typhoid fever; although it wanted what were considered as almost diagnostic marks of this disease, in regard both to symptoms and to the anatomical appearances. He had never before seen such a case; and if it was not typhoid fever, he should not know what to call it.

Dec. 22d.—*Melanosis of the Left Eye and Orbit.* Dr. Gay reported the case.

The patient, L. C., was 54 years old; a farmer; born in Princeton, Me. The first appearance of any disease about the eye was in the Spring, four years ago. There was then a small "bunch" on the inside of the left lower lid (near its internal angle), between it and the eye-ball, which came on after some inflammation of the eye. He did not know what caused the inflammation. It was not accompanied with pain or soreness. It was smooth and not very hard. A gradual increase was observed in the "bunch," and nothing was done for it till it had been growing over a year, when it was almost as large as the eye-ball itself, of a scarlet color, elastic, perfectly movable, and not tender on pressure, nor painful. There was an occasional sharp, "keen" pain in the eye itself, shooting backwards to the occipital region. The pain was always worse after exposure to cold. A year ago last fall, a small ulcerated spot, of the size of a five-cent piece, commenced on the upper surface of the tumor towards the eye. Some weeks previous to this ulceration, two punctures were made at two different periods, in a prominent part of the swelling, and a small quantity of blood only escaped. The wounds healed immediately. The ulcerated s

not at the point of either puncture. About this time the patient accidentally received a pretty severe blow on the eye, which was followed by some bleeding for a few moments only, and in a small quantity. The discharge from the diseased spot was very slight, and the increase of the ulcer was very slow. Last April, the patient fell into the hands of a "cancer doctor." The tumor then was nearly the size of a hen's egg. The plaster was applied every day, for seven or eight days. The pain was intense, like that from fire, for about twelve hours. After this plaster was removed, a drawing plaster was applied. There was no immediate nor subsequent diminution in the size of the tumor. On the contrary, in a short time there was a very observable increase, being much more rapid than before the plasters were used. The most rapid growth had been within the last six or eight weeks. He thinks the eye itself was much more affected after the use of the plasters. During their application, the eye burst and the contents escaped. The tumor then pushed the eye upwards and forwards. He had had but little pain at any time.

The appetite had always been, and is now, good. He had worked hard up to the time of his leaving home. Thinks his general health as good as it ever was.

His father died of consumption. His mother is still living, without any known disease.

The patient lost the sight of this eye, twelve years ago, by a cataract.

For two years after the commencement of the diseased growth, the eyelids could be brought in close contact. There has been more or less of a purulent discharge from the end of the tumor, for the last eight weeks, followed by a thin, dark crust, and slight bleeding on touching.

The tumor now completely fills the orbit, and projects *four inches* downwards, forwards and inwards upon the cheek and the whole of the left side of the nose; its anterior circumference is *five and a half inches*, its posterior, around the edge of the orbit, *eight inches*. The projecting surface is mostly irregularly fissured, bosselated and covered with a black crust; the whole pretty firm to the touch, not soft and somewhat tender to the pressure made upon it by the finger. The upper eyelid was entire, perfectly movable and expanded upwards on the mass; the lower lid was slightly œdematous, rather more adherent by its mucous surface to the under side of the tumor, but still movable. Patient by his will can move about the whole growth, which circumstance, in connection with a more extended motion obtained by the hand, and the absence of any glandular enlargement about the front of the ear or neck, seemed to preclude any firm adhesion to the interior of the orbit, and consequently a more reasonable indication for an operation. The mucous membrane, where it was reflected from the lids on to the tumor, was highly vascular. No part of the eye itself could be seen.

*Operation.* Dec. 13th, 1856.

The patient was etherized, sitting up in a chair, and an incision was made from the external commissure of the lids, and carried backwards about two inches, towards the ear. The upper and lower lids were then dissected away, and after a slight circular incision around the edge of the orbit, the finger passed with but little difficulty around the tumor. There were no adhesions found, and the optic nerve beyond the disease was divided by curved scissors, and the whole tumor easily removed. The interior of the orbit appeared perfectly sound and clean. The ophthalmic was the only artery that required a ligature.

Two sutures were then placed in the portion of skin that was incised, and a cold-water compress and bandage over all.

A section being made through the tumor, its interior was found to be as black as soot throughout, except a small, hardened, yellowish-white mass, three quarters of an inch in diameter, which undoubtedly was the remains of the membranes of the eye. No trace could be seen of the optic nerve. The greater part of the disease was extra-ocular, between the inferior and inner surface of the orbit and the eye. From the patient's account, and from the appearance since its removal, the disease must have commenced in the sub-conjunctival tissue near the inner canthus, extending anteriorly and posteriorly: the anterior portion resting upon the cheek and nose, the posterior portion running along the inferior and inner surface of the eye as far as the optic nerve, then curving upwards and passing forwards upon the posterior and upper surface of the eye. The eye was pushed forwards and upwards. The recti muscles were all *external* to the tumor. There was a pretty firm fibrous membrane covering that portion of the tumor that was in the orbit. The cornea was absent. There was an anterior circular opening, of the size of a pea. None of the disease protruded through this. The interior of the eye was filled with the same soot-colored material. The disease probably entered the eye by the optic nerve.

The tumor generally was firm, elastic, composed of irregular, roundish, black masses, with an intervening fibrous membrane. A section of any of the prominences showed its interior of a black, soot color.

The microscopic appearances of the disease, as examined by Drs. Shaw and Ellis, showed it to be true melanotic cancer. "It was composed of large nuclei with dark contours, containing large nucleoli, and there were also the characteristic cancer cells, though not very abundant. The pigment was in granules, and in portions these granules were very dense, forming compact masses of coloring matter."

Since the operation, the patient has been very comfortable. To-day, Dec. 22d, 1856, he is walking about the ward of the Hospital, and the bottom of the orbit is lined with healthy-looking granulations.

Dec. 22d.—*Etherization in Puerperal Convulsions.* Case reported by Dr. Ellis.

At noon, on Oct. 31st, an Irish woman, 35 years of age, when eight months pregnant, was attacked with convulsions, which continued so severe and frequent, that, towards midnight, the case was abandoned as hopeless.

At this juncture, Dr. D. H. Storer was requested to see her, and did so; but, being unable to remain, advised etherization, and committed the case to the care of Dr. Ellis. When first seen by him, a few moments before twelve, the patient was lying perfectly unconscious, with stertorous respiration, and a pulse of 120 or more, very feeble, and difficult to count. The hands and arms were cold. On making a vaginal examination the head of the child was found presenting, and the *os uteri* nearly dilated. She very soon had a short, but severe convulsion, the limbs and lower jaw being much agitated and the face of a purplish hue. Not long after, ether was obtained and at once administered, and for about two hours she was kept under its influence, but not sufficiently so to prevent some groaning, which marked the recurrence of the uterine pains. The latter were short, but frequent and effectual, the child slowly and constantly advancing, until it was expelled, dead, at 7 A. M. It was small, as was to be expected at that period of pregnancy.

Since the suspension of the ether the convulsions had shown no tendency to return; but with the exception of some improvement in the strength of the pulse, the condition of the patient remained about the same until 2 P. M. At this time a blister was applied to the back of the neck, and an active cathartic was given. Both had the desired effect, and on the following morning she was reported to have had a quiet night. On waking, she felt much better, had expectorated, and had some signs of returning consciousness. The pulse had fallen to 88, but in the afternoon rose to 120, the skin in the mean time becoming hot. This marked the supervention of inflammation of the right lung, the usual physical signs of pneumonia being manifest on the following day. Notwithstanding the persistence of the pulmonary disease, the mind improved, and on Nov. 9th she appeared quite rational. Three days after however the offensive character of the expectoration proved that the disease in the lung was more grave than had been anticipated, and she died of gangrene early in December, the month being uncertain, the day.

On examination no disease was found in the brain. Nearly the whole of the lower and middle portions of the upper lobe of the right lung were in a gangrenous state. The kidneys were normal.

The disease of which the patient finally died has been but briefly alluded to, as the case is reported to show the marked effect of etherization upon the nervous system. Unfortunately the cause was undetermined; but whatever the cause of the illness may have been, it yielded at once to the administration of ether, and never returned. Nor does the effect seem less remarkable when we bear in mind that the ether was not used until the convulsions had continued twelve days, and at a time when the life of the patient was in imminent danger. The surrounding circumstances were all unfavorable, and to these we may perhaps attribute the pulmonary trouble, as the supervention of which in the final termination of the case was entirely owing.

Dr. Acker mentioned the case of a woman, 22 years of age, in whom convulsions during labor, after the unsuccessful employment of antimony bleeding, &c., were effectually controlled by ether, and the patient did well.

Dr. Stokes remarked that he had found a great deal of the greatest benefit in several cases of convulsions in children which had recently come under his observation. In one, a girl 6 years old, in which the attack came on in consequence of a fall upon the head, causing a depression in the cranial bone of the parietal, the patient was at once relieved, the convulsions not returning.

Dr. Clark had tried this remedy with complete success in the case of a boy, 6 years old, who had been long liable to convulsive attacks; these appeared at intervals of from three to eight months, and who finally recovered. The usual remedies were tried without avail.

Jan. 12th, 1857.—*Puerperal Fever followed by Phlegmasia Dolens.* Case reported by Dr. Salter.

M. J. was delivered of a still born child Nov. 29th, 1856, at 10½ o'clock, P. M. It was her first child, and she appeared to possess a good constitution and vigorous health.

Dec. 1st.—Towards evening she experienced shivering and some headache.

2d.—Had a severe chill, followed by heat and sweating, lasting about four hours. She seemed to have a consciousness of severe ailment and great

disturbance of mind. This was soon followed by intense abdominal pain; great tenderness of the abdomen to pressure; a general bloated appearance; pulse frequent (varying from 130 to 140 per minute), hard, irritable and rather small, but easily compressed; respiration thoracic, restrained; and the patient lying upon her back. Tongue moist and covered with a light fur.

4th.—Surface cool and moist; pulse still frequent; abdomen very much swollen and tender to pressure, with considerable gastric disturbance; vomiting frequent.

8th.—A favorable semi-critical change.

15th.—Convalescence fully established.

18th.—Great pain and stiffness in left hip and upper part of thigh, with swelling gradually extending to the whole limb, which became enormously distended (fully double its natural size), and was exquisitely painful to the touch. There was also considerable fever. The skin of the affected limb was white, even whiter than is natural, and smooth. On passing the hand lightly over the limb, there was a sense of hard and sharp ridges and points immediately under the skin, whereas, to the eye, the surface was uniform and even. There was great pain as well as soreness to the touch, during the course of the affection.

Dec. 25th.—The pain, soreness and swelling began to subside at the upper part of the limb; the order of subsidence being the order of seizure.

Dec. 29th.—Every part of the limb pits under pressure of the fingers.

Jan. 7th.—Size of the limb natural, but lacks firmness and tension. At this date the patient, excepting some general debility, walked with her natural ease, the limb being well supported by a bandage. About two days previous to this woman's confinement, a man was brought into the house, affected with a severe form of erysipelas of the head and face, of several day's standing. He died within thirty hours after his entrance. The suddenness of the death, and other circumstances attending it, produced upon her a terrible shock. She had felt the motions of her child up to that time, but none afterwards. After the cessation of motion she experienced a constant sense of coldness and heaviness in the abdomen until her confinement.

Jan. 12th.—*Cancer of the Bladder and surrounding Tissues; of the Lumbar Glands and one of the Ribs.* The case was reported by Dr. Ellis.

The patient was an unmarried man, 66 years of age, who had led a literary life. In the month of May, 1856, a difficulty in expelling the contents of the rectum called for an examination of the part. A tumor in the region of the prostate gland was then found projecting into the intestine, which would allow scarcely any thing to pass. By the use of bougies dilatation was effected, so that the discharges became of the natural size. At the same time, there was felt a tumor, extending perhaps two inches above the pubis. During the first two months after the discovery of these enlargements, there was great pain, accompanied by œdema of the right thigh. But since about the first of August until his death, pain was entirely absent. Though obliged to pass his water as often as once an hour until nearly the close of the disease, this symptom was by no means so troublesome during the latter part of the time, as before the subsidence of the pain. It was not found necessary to pass the catheter, though it had been used two or three times during the last three years of his life. Vomiting had occurred several times, but had always been considered as sympathetic. Finally, he took no food, became extremely emaciated, and died on Dec.

29th. For a fortnight previous he had had no dejection, and for three days had passed no water.

At the *autopsy*, a smooth, rounded tumor, about two inches in length and one in breadth, was found upon the anterior extremity of one of the lower ribs, which was also involved in the disease.

The *pelvis* was mostly filled by a morbid growth, which surrounded all but the anterior wall of the bladder, and was continuous with the disease within. It projected from the peritoneal surface of the upper part of the same, in the form of low elevations. The *bladder* was empty; its cavity not more than three inches in diameter. Projecting from the lower half of the posterior wall was a fungous growth, rising half an inch above the surface, composed of lobules, some of which, apparently from pressure, had assumed a laminated form. Some of the same disease was also seen about the *veru montanum*.

The *prostate gland* was involved, together with all of the surrounding tissues. In the anterior wall of the rectum were a number of low elevations, sufficient to render the surface uneven. All of the coats were in certain points invaded, but, for the most part, the healthy muscular layer intervened between the external disease and that of the mucous membrane. There was no ulceration. Considerable firm fæcal matter had accumulated above the obstruction.

Smooth, rounded growths extended along the brim of the pelvis on the right side. The *lumbar glands* were most extensively diseased, forming by their aggregation a large irregular mass.

The character of the growths was every where the same. Their tissue was of considerable consistence; of a dull or yellowish-white color; here and there vascular or ecchymosed, and contained much milky fluid.

On microscopic examination, there were seen many granular nuclei of the size of or smaller than blood globules. Some contained large nucleoli, but most were without them. A few nuclei, with large well-marked nucleoli, were here and there seen, but with these exceptions there was nothing which could by any one be considered as characteristic of cancer.

The *right kidney* was very small. Nothing abnormal was noticed in the other abdominal organs, which were, however, not examined with as much care as usual. The chest was not opened, as circumstances rendered it desirable to conclude the autopsy as soon as possible.

Jan. 12th.—*Abscess of the Liver opening into the Right Lung.*—Case reported by Dr. Jackson.

A man, 30 years of age, previously healthy, began to have very marked constitutional symptoms about the first of August, followed, in the course of a week, by pain in the right hypochondrium, but without any other local affection. Two months from the above date, and never before, cough, with expectoration and dyspnœa, began. A week later the expectoration became bloody, and had "the taste of old oysters;" but there never was any fœtor, as in gangrene of the lung, nor was the breath ever fœtid throughout his disease; several times he had raised a little clear blood.

On the 1st of November he entered the Massachusetts General Hospital, under the care of Dr. J., having recently come from Canada; in some parts of which country, as Dr. J. has been informed by a member of the present medical class at the college, abscess of the liver is not very rare. During his sickness, the patient had been mostly confined to the bed, and from 174 lbs. he was reduced to 126. He had had quite an urgent diarrhœa for the

last five weeks, with anorexia; but this subsided at once on admission, and his appetite was good for the strongest food. From this time, the cough and expectoration were the chief symptoms. This last, Dr. J. said, was such as he had never before seen in any case of disease; in amount, it averaged, perhaps, a pint daily, and often very much exceeded this; it consisted mostly of mucus, though sometimes, and especially towards the last, this was more or less purulent; from first to last, it was always colored with blood, and this last so increased at one time that mineral astringents were used; the color, on the other hand, was sometimes, and in some parts, such as is seen in pneumonia. Pain about the chest and dyspnœa were marked towards the last, but were never very urgent; there were then, also, febrile symptoms, with an aphthous mouth and œdema of the feet. He was, however, generally comfortable under his disease, and was not wholly confined to his bed until a short time before death. Below the right scapula there was dulness on percussion, and very strong resonance of the voice; generally, a strong bronchial and sometimes cavernous respiration, with occasionally very little sound; very little râle, sometimes none at all, and never coarse—a remarkable circumstance, when considered in connection with the great amount of secretion which was being formed in the air-passages. Otherwise the physical signs were healthy. About a month before death the diarrhœa returned, but it was never very urgent or distressing; and yet, a most extensive ulceration was found throughout the large intestine.

In connection with the disease of the liver, it should be remarked that no yellowness of the skin or the eyes was ever observed.

The patient died Dec. 28th.

On dissection, an abscess was found in the upper part of the right lobe of the *liver*, about five inches in diameter, perfectly defined, partially filled with thin, light-colored pus, and having some opaque lymph adhering to the inner surface. Several very small, and generally minute, deposits of pus were found in different parts of the liver; otherwise this organ was healthy, there certainly being no inflammation in any of the larger branches of the vena porta or hepatic veins. The lower lobe of the *right lung* was mostly occupied by a large cavity, which communicated freely through the diaphragm with the one in the liver, and contained the same sort of pus that was found in it, but no trace of any thing like what was expectorated during life. The remainder of this lobe was soft, greyish, ulcerated and disorganized throughout, the surface that bounded the large abscess being quite shreddy, but without any appearance of gangrene; the cavities, none of which were large, were filled with pus, as above described. The middle lobe was in a state of grey hepatization; but the upper lobe, as well as the whole of the *left lung*, were but little inflamed. The amount of pleurisy also was not great, except in immediate connection with the abscess.

The abundant and very peculiar expectoration during life was, of course, formed in the air passages, and yet the mucous surface presented no very unusual appearance.

Dr. J. alluded to the well-known fact, that, in the diarrhœa of warm climates, abscess of the liver had been found in connection with ulceration of the intestines; the abscess being regarded by some pathologists in the light of a purulent deposit, and connected with an inflammation of the mesenteric veins, as this last is with that of the intestines. The present case is interesting in this relation; the affection of the liver having, beyond question, preceded that of the intestine.

[illegible] Case reported by Dr. [illegible]

[illegible] the Massachusetts [illegible] reported as fol- [illegible] miles in the [illegible] if not immedi- [illegible] for three [illegible] present for [illegible] sense of weak- [illegible] any marked pain [illegible] the kidneys [illegible] during the [illegible] The urine had [illegible] gave up [illegible] and [illegible] She returned consi- [illegible] naturally [illegible] Dr. J. [illegible] and is often [illegible] to explain it as [illegible]

[illegible] bulge into [illegible] from a [illegible] of a [illegible] a feel as [illegible] mark of [illegible] was very [illegible] the den- [illegible] very deeply [illegible]

[illegible] the [illegible] about [illegible] distress. [illegible] en- [illegible] form of [illegible] and [illegible] was [illegible] deposit. [illegible] was [illegible] was no [illegible] urine [illegible] were [illegible]

[illegible] in- [illegible] some- [illegible] pro- [illegible] pain. [illegible] ec- [illegible] [illegible]

[illegible] pen- [illegible]

Mrs. P. M., about 50 years of age, was visited by Dr. S., Oct. 23d, 1856. She had erysipelas of the right leg. The affection had advanced considerably, this being the third day of the attack. There was great swelling; deep redness of the skin, which did not disappear readily on pressure; considerable vesication at the lower part of the leg, and a deep-seated, tensive and throbbing pain at different points of the leg. Her general health had usually been good. She had been a great sufferer for several years from varicose veins of the lower extremities, especially of the right leg—caused, as she supposed, by child-bearing. She had for several months previous to the attack of erysipelas, superficial varicose ulcers on the inside of the right leg, just above the ankle, attended with considerable aching pain, and otherwise producing a good deal of inconvenience. She attributed the present attack to exposure to wet and cold—the affection beginning near to, and involving these ulcers. On the 30th, Dr. S. opened a large abscess which was most prominent, at about one third of the distance from the knee to the foot, and on the front aspect of the limb. A large quantity of thin, purulent matter was discharged, followed, after a little time, by a mixture of grumous blood. This abscess was found to communicate with one formed near the ham, where was a large cluster of varices, subsequently entirely obliterated. Besides these, there were six other abscesses on the leg and three upon the inside of the thigh. Those formed on the thigh were independent of any erysipelatous affection of the skin of the thigh, the erysipelas not having extended higher up than the ham. All these abscesses, excepting the two first, were confined to the dimensions of the clusters of varicose pouches. On being opened, they discharged a mixture of pus and grumous blood.

The process of restoration was slow, but when completely healed it was found that nearly all the varices of the leg and thigh were obliterated, and the woman was entirely relieved of the distressing pain and inconvenience which she had previously experienced. The skin of the leg was of a blueish color for nearly a month after the healing of the abscesses, and was very tight—probably adherent to the subjacent parts. The blueish color entirely disappeared at length; but the tightness of the skin remained.

Jan. 12th.—*Aneurism of the ascending portion and arch of the Aorta; Absorption of parts of the Sternum and Ribs; Death; Autopsy.*—Dr. Ellis showed the specimen and reported the case.

The patient, a widow, 46 years of age, had been, for a short time, under the care of Dr. Salter, from whom the following facts were obtained.

She had always enjoyed good health previous to 1841, when she was confined to her bed two or three months with acute rheumatism, and since that time had suffered much with rheumatic pain and swelling in various parts of the body; dyspnœa on exerting herself in any unusual manner; and palpitation of the heart—the latter being at first an occasional symptom, but very troublesome during the last two and a half years. The right arm had, for more than two years, been so far paralyzed as to be almost useless.

Nine weeks before her death, there was noticed, at the upper part of the chest, a pulsating tumor, which rapidly increased, so that on Jan. 4th it measured, transversely, six inches, vertically five inches; on the 6th, seven by five and a half inches; and on Jan. 10th, seven and a half by six and a half inches.

At the first examination, on Jan. 4th, the pulse [illegible], and va[illegible]

much in fulness, strength, regularity, and occasionally in frequency, especially when pressure was made over the tumor. The impulse of the heart was very feeble and the sounds indistinct, although two were heard precisely alike and unattended by a scuffle. Over the tumor, however, the sounds were distinct. On the day before her death, a bellows murmur was detected just above the cardiac region. The examination was necessarily imperfect, as the slightest pressure caused great cough and dyspnœa. A distressing cough, and a frequent sense of suffocation, were constant symptoms. She spoke in an undertone and with more or less difficulty.

Notwithstanding the rapid growth of the tumor and the dyspnœa caused by exertion, she was able to work and maintain herself until six weeks before death, and then, though incapacitated for labor, for several weeks continued to walk out. During the last fortnight, however, she was confined to her bed, in an upright position, and mostly deprived of sleep. Towards the close, there was much suffering, but she remained perfectly conscious until a few hours before her death.

At the autopsy, the skin was not discolored above the tumor, which had become less prominent, so that the eroded extremity of the ribs and sternum could be felt. On dissecting the skin, the tumor was seen to rise *externally* above and beyond the right side as high as the upper edge of the larynx; below it reached to the [illegible] of the sternum, just above the second rib; laterally it extended to the left as far as the junction of the second rib and cartilage, and to the right some [illegible] further outward. Within *the cavity of the chest*, it filled the entire space between the first ribs, and, gradually diminishing, was extended forward to a point in the sternum, on a level with the third rib. A tumor, projected from an inch and a half to two inches above the surface of the surrounding parts, muscles at the most salient points being [illegible]. At the point, within, just below the first rib on the right side, the same bluish discoloration was seen.

The aorta was dilated and [illegible] above the valves, and gradually expanded into the immense sac, filling the space above described, the ascending portion and arch being [illegible]. The tissue was on its inner surface, [illegible] of the aneurism, the [illegible] the [illegible] surface of the sternum and the extended pericardium [illegible]. The sac contained much coagulated blood, [illegible] of a darkened color, [illegible] blood.

The *esophagus* [illegible]. The *bra*[illegible] were pervious [illegible].

The [illegible] of the chest, compressed [illegible] disappeared. [illegible] extremities [illegible] the soft parts, [illegible] surfaces of [illegible] to the feel [illegible].

The [illegible] was pervious [illegible].

At the [illegible] matter and a [illegible] of more [illegible] diameter, and [illegible] substance. The

remainder of this and the other lung were quite œdematous, but otherwise normal.

Both *Fallopian tubes* were adherent to the posterior part of the uterus, and much distended by clear serum.

The other organs were sufficiently normal.

[A case of aneurism of the arch of the aorta in which the sternum was absorbed, was reported to the Society by Dr. Perry, in 1841. The patient was presented at the Society, in December of that year, the aneurismal tumor at that time projecting through the sternum. He was 39 years of age, a laborer, and born in England. He had enjoyed good health till within the ten previous years. Before that time he had been intemperate; his habits since, however, had been regular. Seven years before, he suffered from a severe attack resembling asthma. He had cough, dyspnœa, occasional pain, but no expectoration. This lasted two or three weeks. For the six previous years he had been subject to one or two such paroxysms every year, with pains through the left shoulder, like rheumatism. He had had much cough, constant dyspnœa, and considerable hoarseness. About two years before, a prominence was observed at the upper part of the sternum, which had been constantly increasing until that time, when it stood out, a tumor one half as large as the fist, projecting two or three inches from the sternum. This bone had been absorbed. The tumor was conical in shape, and at its apex was discolored like an abscess that is about to break. The man formerly wore a plate over it to protect it, but latterly had left it entirely exposed. He stated that he went about freely, but was obliged to move slowly. Since the bone had become absorbed, he had suffered no pain.

In August of the following year the patient died, and the results of the *post-mortem* examination were reported to the Society by Dr. Perry. Dr. P. stated that the patient, since seen by the Society in December, had been able to attend to his duties and keep about as usual, till within three weeks, suffering little from dyspnœa, except on unusual exertion. About three weeks previous to his death, the skin at the apex of the tumor began to give way and to assume a gangrenous appearance. In a fortnight after, one spot sloughed, and exposed the fibrine which was deposited upon the inside of the sac, so that it could be distinctly seen. There was a slight hæmorrhage, which was checked by the application of a handkerchief. Three days after there was another hæmorrhage, which was checked by the application of cloths wrung out in ice water. The next time it occurred, instant death ensued.

At the autopsy, the aneurism was found to be at the arch of the aorta, anterior to the vessels there given off. The orifice was oval and perfectly well defined. The sac was about as large as the fist, and filled with fibrine. It had almost obliterated the upper bone of the sternum. There was another smaller aneurism just below the arch, which was slighly adherent to the left lung, and to three of the vertebræ. The aorta was dilated between the heart and the aneurism, and diseased in its coats; below, it was rather small. The heart was small, and the left ventricle quite thin.—SECRETARY.]

JAN. 12th.—*Vesical Calculus in a Woman, extracted by the Urethra; Death; Autopsy.* Dr. CABOT reported the case.

The patient was 33 years of age, and had had a thick grayish sediment in the urine for the past five years. Stone was detected by sounding, more than a year ago; it was large at that time. The principal symptoms had been, frequent uncontrollable desire to mic-

turate, pain before and after micturition, and sudden stoppage of the urine. This last symptom had become so constant as to require the daily use of the catheter. Urine offensive.

Jan. 1st.—The patient having with much pain introduced a catheter, a large stone was readily felt, although, from the extreme pain caused, no attempt at a thorough examination was made.

2d.—The woman having been fully etherized, was placed on her back in the usual position: the urethra was found to be large and easily dilatable, so that the little finger, well lubricated, passed readily and without force into the bladder, where a large and rough stone could be felt quite near, or upon, the neck of the organ. With slight effort and rotatory movements, the fore-finger was then passed: then the middle finger, then a narrow pair of lithotomy forceps, with which the stone was seized; but being found too large to pass the urethra, ineffectual efforts at breaking were made with various instruments. It was found to be too large to control by the fingers in the vagina, and accordingly it was again seized with the lithotomy forceps, drawn up near the urethra, and a pair of tooth forceps, having long narrow jaws, were passed up between the blades of the lithotomy forceps, the points pressed against the stone, and pieces broken off from it by a sort of gnawing process. During this part of the operation, the handles of the lithotomy forceps were held in the left hand and carried to the right of the median line, and somewhat depressed, in order to give greater facility for the introduction and use of the tooth forceps. After spending about half an hour in these efforts, feeling that it would be very important to remove every portion of the stone from the irritated bladder, and, moreover, that the operation must not be prolonged farther, for fear that the mere prolongation would be a great source of danger, Dr. C. decided that what was left of the stone must be extracted by cutting if necessary. Having released the stone, he succeeded in getting hold of it by its smallest diameter, and, upon making a moderate effort, the stone was extracted by the urethra, without the employment of the knife. The vaginal portion of the passage having yielded largely, the extraction was made nearly upward, that is, at right angles to the trunk.

Dr. Bacon stated the weight of the calculus to be 280 grains, including the fragments preserved: that its structure is cellular and not crystalline; that there are no concentric layers, so far as the interior is exposed: that it is chiefly composed of triple phosphate, mixed with phosphate of lime, a little carbonate of lime, and considerable urate of ammonia.

Dr. Cabot thought that the original stone, judging from its present shape, must have weighed, before its size was reduced, over 300 grains.

The whole time occupied in the operation was fifty minutes; during and after which a careful examination of the urethra and neck of the bladder was made with the finger, without detecting any laceration. The bladder was thoroughly washed out with tepid water, and a full opiate directed as soon as the patient should recover from the sickness caused by the ether.

During the afternoon, the patient had much nausea and vomiting, rejecting opiates, brandy, &c., but this was relieved by a mustard plaster to the epigastrium, and she slept three hours during the night.

She spoke of tenderness in the lower part of the abdomen; were applied with some apparent relief. At 9, P. M., she o complain of general tenderness in the abdomen; twelve eches were applied, the pulse being at that time 112, and of rength. She began to sink early in the morning of January l died at half past 10 or 11 o'clock.

*nortem* three days after death, by Dr. Ellis. There was green- oloration of the *skin* in the hypogastric region. Some vascu- f the lower edge of the *large omentum* and of the loops of *ll intestine* lying just above the pelvis, but no general peritoni- little brownish fluid was found in the cavity of the pelvis. *ular tissue* in the pubic region, in the anterior half of the pel- of a brownish color, quite offensive, moist and very soft, so that eadily torn. The *urethra* was quite large, admitting the fore- ith ease. In the portion next the bladder, and to the right of of the pubis, was a sloughy opening of an inch in length, ng into the bladder; it had the appearance of being formed loughing of the part, the tissues in the neighborhood being ckish color and very soft. The mucous membrane of the was of a dark red color, as was also that of many parts of *lder*. The *ureters* and *pelves of the kidneys* were much dilated, tained a dirty brownish fluid. The substance of the *kidneys* er than usual, and in many parts yellowish, as from the deposit

rincipal objection to the operation by dilatation, seemed to be and violent contraction of the sphincter, but as the use of tic agents obviates this difficulty, there seemed to be no good vhy it should not be adopted. Dr. C. thought that the result of ration should weigh but little, if at all, against this mode of g; his reasons being that from the position of the lesion, it was y caused by the pressure of the blades of the forceps and the urface of the stone acting upon a diseased bladder, a circum- which could not be wholly prevented. During the passage of e through the urethra, little if any pressure could have been on the part showing marks of injury, as the extraction was a direction which would cause pressure rather on the lower the pubic bone, whereas this lesion corresponds principally upper and right side of the pubic bone, just where we should injury from pressure caused by the stone and the lithotomy while the handles of the latter were held to the left of the line.

isfortune in this case was, that it was necessary to employ thods; had the stone been a little smaller, it was Dr. C.'s that it could have been extracted without serious injury, but ssity of reducing its size and afterwards extracting, caused a isk; had the stone been as easily broken as is usual in this stones, it could have been crushed and removed in fragments much risk. But, as will be seen on examining the specimen, peculiar cellular, instead of a crystalline formation, some- e scoria in its appearance, and though friable in detail, is very a whole.

abot, in conclusion, alluded to several cases of stone in which ulus had passed spontaneously. Bartholin mentions a case

where a calculus of more than two inches in diameter was expelled spontaneously by the urethra. Borelli speaks of one expelled in the same manner, as large as the finger. Middleton says that, in a fit of coughing, a woman expelled one that weighed four ounces. Heister mentions cases where one as large as a walnut, and another as large as a hen's egg, were spontaneously expelled. F. Callot mentions one where a calculus as large as a goose's egg was spontaneously expelled. Molyneux says he has seen one which weighed 2½ ounces, which passed in the same way. Yelloly mentions one which weighed over three ounces. Planque mentions cases of even larger stones, expelled in the same manner. Kerkringins, Morand, Grunewald mention other cases as remarkable. M. Segalas had one of at least an inch in its smallest diameter. M. Simon mentions one of 2½ inches long by one in diameter. Mr. Harris saw a woman who passed one 2½ inches long by one in diameter, weighing 651 grains. And Velpeau, from whom these cases are taken, says, that "although some of these calculi may have come from the uterus and vagina, it is nevertheless incontestable that many of them passed by the urethra, and that in certain cases this enormous dilatation was not followed by incontinence of urine." Dr. J. B. S. Jackson informs me that there is a calculus as large as a medium hen's egg, which was removed by the forceps from a woman's bladder, in the Museum of the Hospital at Halle. There is another in the Hunterian Museum, measuring 1½, 1⅛, and 1 inches; also one measuring 2½, 2 and 1½ inches, the former of which was removed by dilatation, the latter passed spontaneously.

JAN. 12th.—*Hæmorrhoids cured by the removal of a Foreign Body from the Rectum.* Case reported by Dr. SALTER.

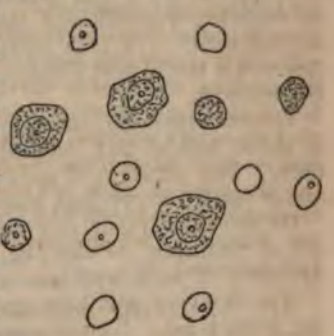
Dr. S. was requested to visit J. N., Dec. 27th, 1856, who was suffering much from piles and difficulty of evacuating his bowels. He had been somewhat afflicted in this way for several months, and had been treated accordingly, but this day he was unable to walk about or evacuate his bowels. This was the first time Dr. S. had been consulted in the case. On examination, one tumor was found, about as large as a common-sized walnut, just outside the sphincter, which was not at all constricted, and of a light red color, but sensitive to the touch. On searching for internal tumors, Dr. S. discovered what appeared to be the point or end of a small stick, just within the anus. On attempting to remove it by the forceps, he found that the tumor was forced down at the same time, and the patient complained most bitterly of pain. Dr. S. inferred that a portion of this substance was imbedded in the tumor, and consequently pushed the substance upward into the rectum, and then seizing the tumor and drawing it to one side, pressing the forceps against the opposite side, withdrew the substance, which proved to be the rib-bone of some fowl. In the course of a week the tumor disappeared, and all complaint of piles was at an end. The man had no recollection of ever having swallowed the bone, and had no idea how long it had been in that position, although he had suffered much from pain in these parts for several months. The accompanying cut gives the size and shape of the offending body.

JAN. 12th.—*Recurrent Tumor of the Orbit.*—Dr. BETHUNE showed the specimen, which was removed by him about the 2d of January. The history of the case may be found in the second volume of the Society's Records, page 326. Since the last operation, which is there recorded, the tumor again returned, being situated between the lower lid and lower orbital plate, causing considerable displacement of the eye, this organ being pushed both upward and inward. The patient was discharged well in a few days after the operation, the eye having returned to its place.

The following account of the microscopical appearance, together with the drawing, were furnished by Dr. SHAW.

"The tumor of the orbit presented similar microscopic appearances to those previously removed from the same situation.

"As before, it was composed principally of free globular or oval bodies, which are undoubtedly nuclei, each containing a distinct nucleolus, many of them granular, these being imbedded in a fibrous basis. Only few cells were seen. The latter contained the same nuclei, and were of irregular form and size.



"There was nothing distinctive of cancer or fibro-plastic disease. The nuclei, as before, resembled very much those of glandular structures, like the tonsils, but no lobulated tissue existed.

"I think this is a peculiar microscopic structure, as yet little known, which perhaps may be called cancer, or some other disease, at a future day."

JAN. 26th.—*Absence of the Omo-Hyoid Muscle.* Dr. HODGES mentioned having observed this anatomical anomaly, one which though well known, was of sufficient rarity and importance to make it worthy of record. It occurred in a female subject remarkable for muscular development. The muscle of one side only was wanting, the other being as usual.

JAN. 26th.—*Etherization in Puerperal Convulsions.* In connection with the cases published in the last number of the Journal, Dr. CORTING reported the following, from notes taken at the time.

Mrs. ———, American, aged 25 years, in her first pregnancy, was seen by Dr. C. May 9th, 1854, about 7, P. M. Her labor had commenced rather unexpectedly some hours previously, and she had already had two severe convulsions. Pains were now frequent, and the labor advancing—the head presenting and the os not remarkably rigid, though somewhat so. After a few pains she was seized with a terrific convulsion. The whole body was violently agitated, and the spasmodic action of the limbs almost unmanageable. The face was frightfully distorted—the eyes uprolled, fixed, with pupils dilated. The tongue protruding, bloody, and covered with froth. Breathing loud, labored, and irregular. Pulse quick, and feeble. There was entire unconsciousness—and the whole aspect of the case was most deplorable.

These symptoms abating for a few moments, returned again with renewed violence. There was no time for delay; during the convulsion, therefore, an energetic effort having been made to dilate the os, with success, the child was turned, and delivered at once. It was nearly asphyxiated, but was soon resuscitated, and though small, was apparently healthy. The placenta was taken away soon after. The hæmorrhage was not excessive. The mother remained perfectly unconscious.

About fifteen minutes after the birth of the child, another convulsion coming on, chloroform was administered, with marked relief. After this experiment, whenever, and as soon as the precursory symptoms showed themselves, immediate resort was had to the chloroform. It always seemed to control completely any further increase, and to allay the present symptoms. When about midnight its further use was opposed by a near relative, that moment arriving at the bedside, its omission was followed by a convulsion as severe as any before its employment. (In this instance the patient forced one of her feet through a thick new blanket.) All present begged a continuance of the remedy.

Towards morning, the frequency and severity of the attacks began to abate, and at last subsided, about fifteen hours after the first attack. The number of convulsions apparently prevented, averaged about one for every half hour. Unconsciousness continued.

On the subsequent day there was occasional retching and unconscious vomiting. Pulse 120. Castor oil was given, and effervescing draughts of soda with lemon juice.

Her recovery was very gradual, and not without occasional alarming symptoms. Consciousness was slowly regained: a period of ten days including several days of confinement, remaining a perfect blank to her. Milk was sparingly given on the fifth day—was never abundant, and after a short time gradually disappeared. The child was given to a wet nurse. Her recovery was finally complete.

It will be noticed that in this case venæsection, so generally advised [illegible] was not resorted to: that delivery was [illegible] as soon as practicable: and that chloroform was [illegible] apparently holding the convulsions in [illegible] for quite twelve hours, until [illegible]

[illegible] mother and child have con-

[illegible] Farmer, of Weymouth,

[illegible] healthy, occasion-

[illegible] Christmas Eve, while

[illegible] with violent pain

[illegible] On the morn-

[illegible] complaining of

[illegible] had been unable to

[illegible] neither accident

[illegible] was unable to raise

[illegible] the kneepoint was neither

[illegible] The pain was entirely referred to a

small spot in the popliteal space. Supposing the case to be one of cramp, a liniment, composed of equal parts of chloroform and olive oil, was ordered to be rubbed upon the part; also, eight grains of Dover's powder, to be taken immediately; if sleep were not procured at the end of two hours, to be followed by twenty drops of laudanum.

Notwithstanding the application of the liniment, leeching, opiates, &c., the limb grew no better, and on the 29th the knee-joint was found to be considerably swollen, the patella being slightly elevated; the urine, also, was high colored.

Judging the case to be one of acute rheumatism affecting the fibrous structures, twenty drops of the wine of colchicum was ordered to be taken every six hours. On the following day, the patient was much better and the pain greatly relieved, and he was able to move the limb. He said he obtained relief soon after the first dose. He was ordered to continue the colchicum every eight hours. On visiting the patient at 3, P.M., on the next day, Dr. F. found him pale, cold, vomiting constantly, purging, and complaining of great thirst and pain at the epigastrium. Pulse feeble. He said he had found continued relief from the medicine, that the pain had disappeared, and he was able to move the limb quite freely, and even to get out of bed. He also stated that he had been led, in consequence of the great and immediate relief he had experienced from the colchicum, to increase the dose, and had taken, in the morning, *half an ounce*, thinking that a large dose would restore him to perfect health. In two hours, vomiting and purging came on, continually growing worse till Dr. F. saw him. The vomiting was peculiar, occurring with the greatest ease. The purging was not very frequent. Brandy, with thirty drops of laudanum, was ordered; also, sinapisms to the epigastrium. Small quantities of lemon juice were found acceptable. No drink was allowed. At 8 o'clock, P.M., the vomiting had not recurred. One grain of opium was ordered. Vomited once just before taking the pill. Strict orders were given to withhold all liquids, notwithstanding the patient's thirst.

On the next morning he was reported to have vomited since eleven o'clock on the night before, at which time his wife gave him a pint of gruel and cold water *ad libitum*. He was quite feeble; the pupils widely dilated and the pulse weak. Solid opium was ordered. All liquids were withheld, except occasionally a tablespoonful of an effervescing mixture, and no vomiting again occurred. On the 3d of January he had entirely recovered.

Dr. John Ware said that he had known of one or two cases of death, partly attributable, in his opinion, to the effects of colchicum. One was a case of violent rheumatism. The patient having been put under the influence of this remedy to the extent of being purged eight or ten times a day, the rheumatic symptoms subsided, but the bowels continued to act, the discharges became bloody, and death took place at the end of a week. On examination *post mortem*, the *colon* was found swollen and inflamed throughout its whole extent, with patches of lymph upon its surface. The *left lung* was congested, softened and in a diseased state. The other case was that of a child.

He also mentioned other cases where much prostration followed its exhibition, together with bloody discharges, vomiting, &c. The effect of this remedy upon the rheumatic affection he had found very marked.

Dr. Ware also alluded to the effect of colchicum in certain abdominal

affections. In one case, the patient, a stout, healthy man, had been troubled with a painful affection of the abdomen resembling colic, not unlike that form produced by lead, there being, however, no evidence that it was due to this poison. Various remedies were tried without avail. Colchicum was at last given in moderate doses, till a mild action of the bowels took place, this being continued for ten days. The effect of the medicine was to diminish the pain even before purgation came on, and the patient was entirely cured.

In another case, one of chronic painter's colic, in which, also, various remedies had been vainly resorted to, colchicum effected a permanent cure.

Dr. Jackson mentioned the case of a Hospital patient with rheumatism, in which purgation having been induced by this remedy, did not cease after its discontinuance. There proved to be inflammation throughout the large intestine. He thought it might be a question whether this condition was in consequence of the subsidence of the rheumatic affection.

Jan. 26th.—*Ovarian Disease.* Dr. John Ware reported the details and conclusion of a case of dropsy, of which an account has already been given by Dr. Gay. (See Soc. Rec. Vol. III. p. 47.)

Mrs. S——, aged 27, was delivered of her first child six years ago, after a hard and long labor. She recovered slowly and imperfectly. Had pain in the ovarian regions of each side, with fever and swelling of the abdomen after she had left her chamber, and never fairly recovered her health afterwards. She was delivered a second time at the expiration of two years. During pregnancy the abdomen became much more distended than was due to the uterine enlargement, and there was an obvious fluctuation. Her second labor was easy; but very soon after it, the abdomen became suddenly very much distended, partly with liquid and partly with flatus, and never afterwards entirely subsided. For about three years more she continued in a varying but gradually declining state of health—having, during this period, several distinct attacks of peritonitis.

She was first seen by Dr. W. in December, 1855. The abdomen was enormously distended with liquid, the respiration difficult, the pulse rapid and feeble, and the general distress very great. For a few days some relief was attempted, but the condition of the patient became rapidly so much worse, that she was tapped by Dr. Gay, though at the time of the operation it seemed very doubtful from her extreme feebleness and distress whether she would survive it. After a few days she began to rally, and became comparatively comfortable, but at the expiration of six weeks a repetition of the operation became necessary.

The canula was now left in the wound, and the fluid drawn off as fast as formed. Presently its character changed, and an extremely fœtid pus was discharged. By washing out the cavity with simple water, the fœtor was removed, the cavity diminished in size, and the canula was removed in July. The opening healed. She spent the summer in New Hampshire, enjoyed good health, and on her return weighed 12 pounds more than she ever had before. Her aspect was that of perfect health. Menstruation had returned—too frequently at first, and latterly too copiously. To the right of the median line, and some-

what below the umbilicus, was felt a hard small tumor within the abdomen, which was supposed to be the obliterated ovarian sac.

Six weeks ago she began to complain of pain and tenderness across the epigastrium, with loss of appetite and strength. These symptoms increased. The abdomen enlarged.

Jan. 5th. She complained of pain in and around the uterus, and pain in passing fæces. There was swelling, with distinct hardness in the right pelvis, but the enlargement of the abdomen elsewhere seemed chiefly flatulent.

12th. Enlargement much increased, but the swelling of the right seemed quite distinct from that of the left pelvic region—the former being more dense, the latter fluctuating. The upper part of the abdomen was sonorous on percussion. The whole abdomen was very tender—there was vomiting and inability to take food. Pulse rapid and feeble.

16th. Increase of symptoms—but though the swelling had increased, there was an evident line of demarcation between that in the two pelvic regions. Above the umbilicus percussion was still sonorous.

21st. Distension had increased very rapidly; it was uniform, and everywhere fluctuating. The countenance was much sunk; the pulse very rapid and feeble; respiration labored, and the whole aspect very unfavorable. Vomiting continued. She was again tapped by Dr. Gay, and about 16 pints of a thin bloody fluid drawn off. A good deal of relief to the patient followed; the fluid continued to discharge through the canula which was left in. There was, however, no material improvement, and death took place Jan. 25th, four days after the operation.

The liquid discharged in the two first operations was of a thick dark coffee-like color, and of a thick ropy construction. There can be little doubt that it was from a cyst. In the last operation the collection was unexpectedly found to have been in the cavity of the peritoneum, which accounts, probably, for its different character.

*Post-mortem Examination.—Externally*, the *abdomen* was flattened and irregular. To the touch, this irregularity was produced by an indurated mass occupying more particularly the whole region on the right side of the median line, from the liver to the iliac fossa. An incision was then made from the ensiform cartilage to the pubis. A liquid (claret colored), similar to that removed at the time of the tapping, was seen in the abdominal cavity. A crucial incision was then made on a line with the umbilicus, and the whole of the fluid sponged away. On turning outwards the abdominal flaps, their whole *peritoneal surface* was found much thickened, and at some points inflamed, at others dotted with red spots in large numbers, and generally presenting a roughened, honey-comb looking appearance. There was no indication of an ovarian cyst that had been opened. On searching carefully, it was clearly seen that the whole *omentum* was diseased, thickened, and adherent to the abdomen laterally. The adhesions were such that a complete partition was made between the intestines and the abdominal walls anteriorly. Here was an artificial cyst or cavity, made where the fluid had collected. The fluid was not ovarian, and its red, claret, bloody color was undoubtedly owing to blood that had escaped from the red spots. In the region of the liver and stomach was another cavity, containing the claret liquid, and communicating with the main one. In the gross appearances, the disease of

the omentum looked very much like the tissue of the pancreas, made up of large granules or lobules, irregular in their size and shape, friable in some places, firm and almost elastic in others.

The disease was separated at the upper part of the abdomen, and then removed from below with the uterus and ovaries, to which it was strongly adherent.

At a subsequent thorough examination by Dr. Ellis, the disease was entirely separated from the uterus and ovaries. The remains of the cyst that was formerly tapped, were found in a healthy state, the size of half of the palm of the hand, an inch thick, with traces of the former cavity. It was unmistakably the contracted, thickened cyst. Nowhere in its structure was there any sign of the disease of the omentum. The *uterus* was healthy. There was a cyst, of the size of a hen's egg, in the other ovary.

The following is the account furnished by Dr. Ellis. The large thickened mass, probably the omentum, was so closely connected, and continuous with the pelvic organs, that the line of separation could not be distinguished. The pelvic organs themselves were also so closely bound together, and covered with adventitious material, that they could hardly be traced.

The old sac was, however, finally found, its upper edge closely attached to the lower edge of the thickened omentum. It was connected with the left ovary and formed a fibrous, dull-white flattened mass, nearly an inch in thickness and about three inches in diameter. Externally it was, in parts, pretty smooth and rounded, elsewhere wrinkled and irregular, having been torn up from the posterior part of the uterus. The outline of the cavity was distinct, though the latter was obliterated by adhesions, which were separated with little difficulty, the inner surface thus exposed being pretty smooth.

In the other ovary was a cyst, about two inches in diameter. The thickened omentum presented a peculiar appearance, being composed of a firm, grayish-white substance, in which were many small masses of fat, looking like those generally seen in the omentum, though smaller. The adventitious material had apparently formed around them. Microscopically it was a cellgr with, but no positive opinion could be expressed with regard to its character.

Jan. 26. *On the Oxyde of Zinc in the Sweating of Phthisis.*—Dr. Jackson remarked upon the very great efficacy of the oxyde of zinc, in relieving this distressing symptom. He had generally given it in doses of seven grains, in the form of a pill at night, repeating it if necessary; ten grains being sometimes required.

He stated that he had also recently given it with success in a case of profuse sweating in a patient who had had intermittent fever; also in a case of acute rheumatism, in which, as so frequently, this was a prominent symptom, the dose being seven grains three times in the day; within twenty four hours the sweating had diminished, and in a few days had entirely ceased, and without any unfavorable effect on the disease.

Allusion was made by Dr. J. a year since to the power of this remedy, in the sweating of phthisis, and his subsequent experience has confirmed him in his estimation of its great value in such cases. Drs. Coxe and Amor, both agreed with Dr. Jackson as to its merits in the latter class of cases.

JAN. 26th.—*Digitalis in certain Affections of the Bowels.* Dr. WARE stated that he had found this remedy of great benefit in the following case. The patient was a woman who had suffered from dyspepsia, and had become somewhat reduced in strength by child-bearing. She had an affection of the bowels, which consisted in excruciating pain, coming on in paroxysms, together with diarrhœa and vomiting. The pulse was also extremely frequent, varying from 120 to 140. She bore opium badly. Dr. Ware, thinking that the quickness of the circulation might keep up the irritability of the system, ordered digitalis, and this remedy was continued until the pulse was reduced to 54 beats in the minute, where it was kept by the remedy for a considerable time, and the patient recovered.

JAN. 26th.—*Calculus from a Mink; probably from the Urinary Bladder.* Dr. JACKSON presented the specimen, which was sent to Prof. J. WYMAN, of Cambridge, by Mr. WM. EDWARDS, of South Natick, and at the suggestion of Prof. W. was presented to the Society.

The animal was of the ordinary size, and Mr. E. says "the man who shot it could only tell me that in skinning the mink, he felt this hard substance in its belly, and took it out to satisfy his curiosity. He thinks it lay two or two and a half inches from its tail."

The calculus is of a very regular elongated oval form, somewhat granulated upon the surface, of a whitish color with a tinge of yellow, and very compact in structure. Having been sawed lengthwise, the cut surface measures $1\frac{3}{8}$ inches by $\frac{7}{8}$ inches. The mass has a distinctly, though not very strongly marked, radiating and laminated structure; its broken surface has generally a dull hue, but is in some parts shining; the color is about the same as that of the external surface. The central portion, to the extent of three eighths of an inch, is darker colored and of a coarse structure.

Dr. Jackson remarked upon the enormous size of this calculus, supposing that it came from the bladder; also, upon the fact that the same animal is found, in this neighborhood, to be very frequently the subject of another affection of the urinary organs, viz., strongyli in the kidneys. He never before had heard of a case of calculus.

The following is the chemical analysis of the stone, as reported by Dr. BACON.

"The calculus having been sawn through the centre, presents radiating lines, and numerous concentric layers, of a nearly white color. It is composed of triple phosphate, with small proportions of phosphate of lime, oxalate of lime, urate of ammonia and animal matter."

FEB. 9th.—*Method of stopping Epistaxis.* Dr. COALE remarked that he was called, a few days since, to a patient, in the absence of his regular attendant, and found him bleeding freely at the nose. The patient stated that he had had a sponge put in a few days before, evidently by Belloc's sound, a proceeding of which he dreaded the repetition. Dr. C. had never used Belloc's instrument, but keeps at hand a contrivance of his own, which he claims to be much simpler, cheap, within the means of any one, to be introduced with facility by the physician and with ease to the patient, to be removed with greater facility, and most important of all, to be fully equal to all the demands of the case. It consists of a piece of pig's gut eight

inches long, tied at one end, and then turned wrong side out, so that the knot may be inside, on a child's silver canula. By this canula it is introduced through the nose to the pharynx, and then blown up and tied an inch or so outside the nose. Dr. C. often introduces a spoonful of saturated solution of alum into it. It will be seen at once that it plugs up both posterior and anterior nares thoroughly. To remove it, it must be pricked and then gently twisted as it is drawn out. Dr. C. always keeps a yard or two of gut on hand in a bottle of diluted alcohol, and he finds it saves a great deal of time and of getting up at night to look after patients taken with a sudden recurrence of the bleeding.

Feb. 9th.—*Erysipelatous Sore Throat.* Dr. Coale remarked that he had been attracted by an article in one of the late English periodicals, asking information as to the best means of combating erysipelatous sore-throat. The writer rehearsed the difficulties of the treatment thoroughly, and doubted the efficacy of many, and even the applicability of some. Believing that the quinine treatment has proved the most efficacious in treating external erysipelas, by analogy Dr. C. thought that it would be equally efficacious in the treatment of erysipelatous sore-throat. He has in consequence adopted this as his routine treatment, and with very marked success. The cases which he might adduce are now nearly twenty in number. It would be unnecessary to quote them in detail, but they exhibit cases of erysipelatous sore-throat cut short in from ten to five days, the avoidance of suppuration, and the prevention of many of the unpleasant sequelæ of the disease. He has never pushed the remedy beyond five doses, of ten grains each a day.

After the erysipelas has disappeared he has found it often beneficial to gargle the throat with a strong decoction of oak bark, or swab it with diluted aromatic sulphuric acid.

[illegible] *Tribute from the Tre-*[illegible] Case [illegible] Sewer.

On the [illegible] November 1880 Dr. S. received a letter from Rev. M. S. [illegible] D., N. H., in which is the following extract:

"[illegible] was suddenly [illegible]. His breathing and peculiarity of cough have [illegible] for the last six weeks as [illegible] A. [illegible] day his complaints com[illegible] and came near be[illegible] was made to get it out of his [illegible] into the [illegible] the present time, he has [illegible] asthma. *Case* [illegible]

[illegible] of a case of [illegible] as the symptoms [illegible] after the dis[illegible] into his [illegible] any opinion with[illegible]

On the 28th of November [illegible] accompanied by his son, aged 8, and from him were elicited the following facts. G.

left home in the afternoon, to play in a neighboring garden with a company of children. In the garden were paths which had recently been filled up with sea-beach pebble-stones. There were also a couple of deer in the garden. The children, while enjoying their sport, picked up some of the pebbles, probably for the purpose of throwing at the deer. G. put several into his mouth, but had removed all but one when the deer came towards the children, who being frightened, ran for the piazza for safety. While jumping on to the piazza, G. was suddenly seized with violent coughing and symptoms of strangulation. A woman who was near at hand, and to whom he made signs indicating that something was in his throat, put her finger into his fauces in order to relieve him, and said that she felt the pebble, and while attempting to remove it, it slipped from her fingers. Almost immediately the violent symptoms subsided, and the boy ran home. From this time the child had occasionally had violent fits of coughing. This cough was very peculiar; being short, suffocative, and slightly stridulous. During the day, for the most part, if kept quiet, he had very little cough, and his breathing was quite easy and natural; but on making any exertion, as in running or going up and down stairs rapidly, coughing was excited, and his breathing rendered so difficult and laborious that it could be heard in almost every part of the house. The fits of violent coughing seldom occurred during the day, unless there was extra exertion. At night, however, after going to bed, the fits of coughing and difficulty of breathing were particularly severe and distressing. Such was the history of the case.

While the boy was quiet, it was noticed that his expiration was more difficult than his inspiration. On applying the ear to the chest, either front or back, light sonorous and sibilant sounds were heard. They were most distinct when the ear was applied to the acromial region of the right side, either back or front. After exertion these sounds were louder. The whistling sound would disappear for a short time after a fit of coughing, and then return.

In view of all the facts, Dr. S. gave it as his opinion, that there was a foreign body in the trachea or one of the bronchi, and advised an operation for its removal. To this the father replied, that as his own physician, in whose judgment and skill he had great confidence, had expressed a doubt as to the pebble being in the trachea, he should delay the consideration of an extreme remedy for the present. Such being the case, and urged to try something, Dr. S. suggested an emetic as affording some chance. This however proved ineffectual, though it acted with great power. Turpeth mineral was the article used.

The child was not again seen until the third of the present month, though he had been heard from through his father several times. During the two months interval no improvement in his condition had taken place, but in some respects the symptoms were much aggravated. Besides the usual symptoms, he had passed through a mild attack of lung fever. The paroxysms of violent coughing became more and more frequent, more distressing, and more prolonged, continuing, for the last few nights, from three to four hours. He complained more frequently of suffering an intense fixed pain in the upper part of the trachea, commencing with the cough and lasting for some time after the fit was over, but gradually subsiding into greater or less continuous

sickness. His appetite was failing and his flesh emaciating. The father was again urged to submit his child to an operation, as affording the only chance of saving him. Accordingly he brought him to the city on the third of the present month. On the 4th, Dr. Henry J. Bigelow visited the child in consultation, and agreed as to the diagnosis and the necessity of an operation, and to his skill and judgment the case was now entrusted. Thursday, the 5th, at 12 o'clock, M., was fixed as the time for its performance.

In the morning of the day of the operation, during a paroxysm of coughing, the stone was heard forcibly driven to the upper part of the trachea two or three times, producing the idea of a light clicking sound at the upper part, and a duller sound at the lower part of the trachea. The boy complained of the usual pain at the upper part of the trachea after the fit of coughing was over. This freedom of the stone in the trachea gave reason to hope that there would be little difficulty in finding it—in short, that it was altogether probable it would be expelled from the trachea the moment a sufficient opening should be made.

The operation was performed in the presence of Drs. Coale, Hodges, and Gillis. The patient having been placed upon the table and etherized, he was put in position for the operation. An incision was made exactly in the median line, about two and a half inches long. The skin, fascia and fat being divided, the sterno-hyoid muscles separated, the loose cellular texture and veins being removed from the front of the trachea, and the thyroid gland pushed out of the way, the trachea being stretched and fixed by the assistants and the wound perfectly cleansed of blood, a knife was inserted into the trachea at the lower part of the wound, and three or four rings divided by carrying the knife upwards. A moment after the opening was made, the stone was thrown into the opening by a short and sudden cough, and before it could be seized by the forceps another short cough threw it out upon the napkin. A curved conical silver tube was introduced into the trachea, to prevent the entrance of blood. As soon as all danger of this had ceased, the tube was removed, and the wound dressed with folds of linen cloth moistened with water. These were changed as often as they became dry. In the evening the wound was closed with adhesive plasters. The night was passed more quietly and comfortably, and with more sleep, than the boy had had during any one night for four months. The stone was smooth, and about the size and shape of a hazel-nut bean. After the operation the wound healed rapidly, the patient improved in health and strength, and is now, Feb. 14th, entirely recovered.

Feb. 9th.—*Ovariotomy.* Dr. Gay read the case.

Mrs. B——, aged 54, a nurse, noticed a fulness in the lower part of the abdomen, on the left side, three years and a half ago. She was not aware at the time what it was, and did not suspect anything like dropsy, till it had enlarged so much as to pass over the median line to the right side, and made the whole of the inferior portion of abdomen more than naturally prominent. Her general health was not good, as for a number of years she had suffered from dyspepsia in one way or another, and particularly from frequent retching and occasional vomiting. At times, her greatest distress was from gas rolling about in the

ines and stopping at a particular spot; this caused a painful ac-
lation and distension, and was only temporarily relieved by hot gin
vater, which produced frequent eructations of immense quantities
tid gas, almost fœculent. She said she "had raised barrels full
course of two or three hours." As the abdomen enlarged, the
tity of gas collecting was not so large, but the eructations were
frequent, and especially at night. During the last six
hs, the abdominal increase was much greater than at any
ous period. Her breathing was but slightly affected. She mea-
l around the abdomen, two days before she was tapped, forty-five
s. At that time, some hard spots of different sizes could be felt
gh the abdominal walls, above and below the umbilicus on each
but, owing to the great distension, no certain diagnosis could be
ed with regard to them. Thirty pints of a dark viscid, molasses-
ed fluid were removed by the trocar and canula. After the tap-
, a solid mass, that is, very hard to the touch, could be felt two
ree inches above the umbilicus and on the left side, of the size of
ist. Also, just below the liver on the right side, could be felt
thing firm and deep seated, which was supposed to be connected
the main cyst. The walls of the cyst did not fall down appa-
y at all, and the indications were strong enough that firm adhe-
existed, on the left side and at the median line, *above* the umbili-
In the right iliac fossa, another hard mass could be detected,
r than the others and but slightly movable.
had been the intention to let the canula remain in the cyst. But,
ere were three portions in some way connected with the main
, made up probably of a series of small, closely-packed, separate
s, or of something more solid, it was considered decidedly an un-
rable case for the canula treatment, a unilocular cyst being un-
tionably preferable for a radical cure by the canula.
e canula was accordingly withdrawn.
a few days the patient was up and about the room. The distress
the collection of gas soon returned, and was even worse than be-
Her bowels were somewhat opened every other day, and the
eys acted well. The cyst was refilling. The remedial measures
of no relief to her distress. In January, she begged for some
ation to lessen her sufferings. The unfavorable nature of the
for an operation was stated fairly to her by Dr. Channing and
Gay. She persisted in having something done. The adhesions
the firm mass in the pelvis were spoken of, and her reply was,
rhaps they will not be found so bad as we think they are."
e abdomen was now nearly as large as it was before the tapping,
her sufferings increasing daily. Scarcely any sleep was had by
t or comfort by day. In her present condition she could continue
ve but a short time. She preferred to die, rather than undergo
torture.
ter carefully considering, the urgent necessity of some relief to
increasing severity of the symptoms, the inevitable result that
d so soon follow if no operative measures were taken, her repeat-
treaties on account of her sufferings, it was represented to her
the chances of a successful issue of a radical operation were
slight indeed, but that a small exploratory incision should be

made, to ascertain the amount and extent of adhesions, and if it was found practicable the whole cyst should be removed.

*Operation.* February 1st, 1857, 11 A. M.

Some castor oil was given the day before. On the morning of the operation, nothing but liquid was taken. The temperature of the room was between 70° and 80°.

The patient being etherized and placed in the position for lithotomy, an incision was made extending downward three inches from the umbilicus. As soon as the cyst was fairly exposed, a straight catheter was introduced into the wound and passed easily around every part of it, except on the anterior portion just above the umbilicus and a small spot just to the left of the median line. On further examination these adhesions were found to be slight, and they were broken down, with no any trouble, with the catheter. No adhesion now remained, either laterally or anteriorly. The external incision was then prolonged downward three inches, the cyst was tapped, and twenty-eight and a half pints of a clear, white, flaky-looking fluid was removed through the canula. The hand was then introduced into the abdominal cavity, and a large, firm mass was felt blocking up the cavity of the pelvis. On drawing the cyst out of the wound this mass came with it, and no adhesions were found except those that made the pedicle, which was firm, flat, and about three inches long, involving the right Fallopian tube throughout its entire length. The pedicle was then embraced in four ligatures, the Fallopian tube was dissected away, and the whole cyst was easily removed.

It should be remarked that there was about a pint of ascitic fluid removed before the cyst was tapped. As there was no bleeding, the ligatures were drawn out of the abdominal cavity, and the external wound was brought together by twenty-four sutures, with intervening strips of isinglass plaster. Warm fomentations were then applied, and a slight compressing bandage. A pill containing two grains of calomel and one of opium was ordered to be taken every four hours.

The weight of the cyst was [illegible] lbs., weight of liquid 28½ lbs.:—total [illegible] lbs.

The greatest circumference of the cyst which could be tapped was 43½ inches, the smallest [illegible].

It was a [illegible] cyst. The hard mass felt above and [illegible] was made up of [illegible] cysts, varying in size [illegible]. The mass in the pelvis was as [illegible] was made up of cysts about [illegible]. No [illegible] was found to account for the hard mass [illegible].

After the [illegible] was raised up by the [illegible] rigors [illegible] at the epigastrium [illegible] symptoms. At 5, P. M. [illegible] though the pulse was [illegible]. Stimulants were [illegible]. The [illegible] was [illegible].

[illegible] a very quiet night, with some sleep. She was now comfortable. There was some

thirst; no pain nor soreness of the abdomen. The skin was soft and warm, but not hot. Pulse 110, and stronger than on the previous evening. The tongue was slightly coated. There was some flatus in the arch of the colon. The rest of the abdomen was flat and soft. The wound looked well, and there was no sign of inflammation about it. The urine was drawn off. It was ordered to omit the calomel in the pill, and that spear-mint tea be taken for drink.

At 5, P. M., she expressed herself without a pain or an ache. The flatus was extending over to the left side. As yet it was not troublesome. The other symptoms were about the same as in the morning. The urine was drawn off every six hours.

On Tuesday, she was reported to have had a very comfortable night, and to have slept quietly three or four hours. She had been more free from pain than for several months. Pulse 110—stronger. Tongue about the same. Skin not hot nor dry. There was no pain nor soreness of the abdomen. There was flatus in the descending colon, and the rectum tube was passed up the bowel, but without relief. She raised wind from the stomach. She had not taken any pill since 4, A. M., as she had been perfectly quiet. Did not complain of anything. There had been no thorough operation from the bowels, and half an ounce of the fluid magnesia was ordered every four hours. During the evening the flatus increased very much. Some slight relief was had from hot gin and water with camphor. At midnight the distress from the collection of gas was very great. No relief was obtained from an enema or from the rectum tube. She complained of the want of air and the epigastric goneness. There was retching and occasional vomiting, of a coffee-colored fluid, about a tablespoonful in quantity. Stimulants and other measures were tried without effect.

On Wednesday, the nausea was less frequent. The countenance looked decidedly bad. The pulse was very feeble, and the patient was evidently failing, if not moribund. Carbonate of ammonia was given. The abdomen was tympanitic, but no where tense. Some flatus escaped through the rectum tube. The nausea and vomiting continued; and at 2, P. M., 74 hours after the operation, she died.

No post-mortem was permitted.

Feb. 9th.—*Expulsion of a Lumbricus with a Dress Hook attached.* Dr. Williams showed the specimen, which was received from Dr. Stocker. The worm was expelled by a child, and at a point about one quarter its length from the posterior extremity was attached a common dress hook, through one of the eyes of which this portion of the worm had passed.

Feb. 23d.—*Fibrous Tumor of the Uterus, complicated with Ascites.* Dr. Jackson mentioned that he saw the patient the day before with Dr. Thorndike, of East Boston. She was 48 years old; tall and muscular; a laundress. She had been sensible of something unusual about the left side for more than a year. In September last, Dr. T. was called to see her on account of some ill-defined constitutional affection. Since that time she had been enlarging in size, but had kept about her work. Four gallons and one quart of a yellowish serum were drawn off on the the afternoon of the day Dr. J. saw her.

The tumor was afterward felt upon the left side, of about the size of the head, and quite dense.

On examination per vaginam, the *os uteri* was found looking backward, and the tumor was also felt, having the hardness of the fœtal head.

Dr. J. regarded the ascites as a very unusual complication with a fibrous tumor.

Another peculiarity in the case, he thought, was the regularity of the menstrual flow, the only signs of an increase in the amount. He had very generally noticed a tendency to menorrhagia or hæmorrhage in these cases.

Feb. 21.—[illegible] *Tumors of the Uterus.* Dr. Jackson showed two specimens, which were from Dr. Collins, of Providence, with the following account of the case.

[illegible] was a married woman, aged 59, single, of large and well developed person, who had been an inmate of the City Asylum in Providence 20 years. Until within the last three months, she was only known [illegible] as a hale fleshy woman, who had suffered [illegible] a difficulty with [illegible] before her admission to the Asylum. About the last [illegible] she became more feeble, and took [illegible] and at this time [illegible] which he supposed to be [illegible]

[illegible] symptoms of any [illegible] occasional [illegible] of the legs, particu- [illegible] place Jan. [illegible]

[illegible] which was [illegible] of the [illegible] the cavity [illegible] attached to [illegible] way be- [illegible] been de- [illegible] like [illegible] through- [illegible] consisted [illegible] ute- [illegible] was [illegible] atro- [illegible]

[illegible] *Um-* [illegible] was received [illegible] patient [illegible] the end [illegible] she be- [illegible] In [illegible] of the [illegible] when

it ceased, and did not return. Though in pretty good health, she felt a sensation of cold in the lower part of the bowels, and of dragging in the loins, and occasionally a little chilly. No farther enlargement took place. The fœtus, with the placenta attached, was expelled on the Tuesday before the meeting. The placenta was somewhat fibrous, being more dense than usual, and contained a good deal of fat and granular matter. An older sister had the same accident (as regards the blighted ovum), some years previously, though there had been no hæmorrhage, nor any apparent cause to account for it. Fusion was also found to have taken place between the contiguous surfaces of a loop formed by about the middle half of the umbilical cord, the line of demarcation between the two being sufficiently distinct. At one point near the extremity of the loop, the two portions were separate.

Feb. 9th.—*General Affection produced by the application of Atropine to the Eye.* Dr. Bethune mentioned the case.

On finding that the pupil did not dilate on application of a solution of atropine containing one grain to the drachm, an application of double this strength was made three times successively. In the afternoon the patient was attacked with delirium, there being also uncertainty in his gait, with absence of sleep and difficulty of swallowing. On the day but one after, he had another attack of delirium, somewhat resembling *delirium tremens*, seeing imaginary persons in the room. On the following day he was well.

Feb. 23d.—*Growth of a Horn.* Dr. H. J. Bigelow showed a specimen of horn removed at the Hospital, by Dr. Cabot. The patient, aged 42, married, had always had a large mole where the tumor was situated, at the top of the back, half an inch to the right of the spinal column. She had never had any extraordinary feeling in it until about a year ago. It then began to be sore, when she lay on her back, or when her dress bore upon it. The bunch then commenced to grow, until it had risen a little above the level of the surrounding tissues. It was hard, about the size of a filbert, and immovable on account of its firm deep attachments. She had recently had acute lancinating pains in and about the growth. Her general health had been good, nor was there any cancerous disease in the family.

The tumor was enclosed above in a sort of sac, which enveloped its horny tip. This surmounted a mass of concave epithelial layers, arranged like a pile of cups, corresponding to the matrix of a nail. The length of the tissue constituting the matrix was three fourths of an inch; that of the horn, one fourth of an inch; the whole being of the diameter of a swan's quill and buried in the fat. The horn was about to perforate the cutis by ulceration.

Feb. 23d.—*Unusual Sequela of Scarlet Fever.* Dr. Cabot mentioned the case.

The patient was the father of two children who had both had this disease. The eldest of the two had last taken it, and during the first week of its progress the father was seized with sore throat. There was no eruption; there was, however, considerable prostration, fever, and pain in the bones. The urine was cloudy, and dark colored, but contained no albumen at the time Dr. C. saw him. In various parts

of the body small spots soon after appeared, which became painful, and were followed by suppuration, having the characteristics of that following phlegmonous inflammation. There were two of these spots on one arm, and one on the other; also one over the region of the sacrum as large as the palm of the hand. The patient is still under treatment.

Feb. 23d.—*Recurrent Tumor of the Orbit.* Dr. Bigelow showed a portion of the diseased growth removed by him from the patient whose case was reported at the first meeting in January, and who had been operated upon by himself before that date. The upper surface of the bony orbit itself being affected, Dr. B. did not attempt another operation for the removal of the disease. Although, as Dr. B. remarked, the disease is microscopically innocent, it is clinically malignant, and nothing further can be done for the patient.

Feb. 23d.—*Ovariotomy, and the other operations for Ovarian Disease.* A question of Dr. Jackson as to the probable cause of the ill success that had attended the recent operations for ovarian disease in this city, led to some discussion in regard to the relative propriety and success of the various operations which have been and are still in vogue in this disease.

Dr. Cabot alluded to the success that had attended the operation in Paris, by injection of the tincture of iodine, and the favor it had consequently found with French surgeons. Little trouble seemed to follow the operation, except, in a few cases, some degree of inflammation, and, in some instances, the iodic intoxication. In view of the great array of successful cases, he was inclined to consider this mode of operating as on the whole the safest and the best. He spoke of the quantity of the tincture of iodine used by the French surgeons, as important in preventing the putrid suppuration so liable to follow this operation.

Dr. H. J. Bigelow had formerly operated twice without success, and for a number of years has declined to do the operation of ovariotomy. It puts the patient in great danger, and, from the frequency of the operation out of town, it is probable that there are unrecorded cases which would increase its estimated mortality. In this class of cases, the surgeon encounters a large number of patients, young and old, solicitous to be relieved from a disease which subjects them to discomfort, and sometimes to annoying suspicions; many being still in the enjoyment of tolerable health, and with a fair prospect of life for some years. In fact, these last are the most favorable cases for ovariotomy. There is no surgical operation at once so frequently offering itself, and so largely and immediately fatal, to patients in a comparatively comfortable state. The injection of iodine and the permanent canula are both useful chiefly in the case of unilocular cysts, which are quite rare compared with the usual multilocular form of disease, and not to be distinguished with certainty from the latter. Dr. B. referred to a fatal case resulting from each of these methods of treatment. Tincture of iodine is composed of iodine and alcohol. Alcohol alone would probably be as efficacious an injection in a variety of cases of disease usually treated by injection of the tincture of iodine. The frequent and careful washing out of a large ovarian

cyst with a bland fluid after operation, to remove decomposing or acrid discharge, or even of the peritoneal cavity, as recently detailed in a case of Prof. Peaslee, doubtless tends to procrastinate or avert a fatal result.

Dr. Warren remarked that these cases in London had generally been in the hands of specialists, and that he had not seen the operation performed in any of the principal hospitals of that city. He had himself operated by the injection of iodine, but without effect. He alluded to a case in which Dr. Simpson, of Edinburgh, operated in this way. Eight ounces of the tincture of iodine were thrown in. The operation was followed by pain, swelling, and other constitutional symptoms of considerable severity, from which, however, the patient recovered. He thought it important to ascertain, if possible, the result in these cases after the expiration of a considerable time.

Dr. Coale alluded to the fact that the time required for the sac to re-fill after tapping, varies in different cases. In one case, in which he operated, in May, 1853, no further operation had as yet been required. Nine pints of a dark-colored and tenacious fluid were drawn off.

Dr. Gay said that some cases recover from simple tapping, and others from local and constitutional treatment. He mentioned cases on record where recovery followed the rupture of the cyst: and referred to certain cases reported some time since by Dr. Channing. With regard to the treatment by the injection of the tincture of iodine, he remarked that this is now undergoing a trial in England; that while in some cases it had been attended with success, in others no benefit followed. In a few cases, the peculiar effects of the iodine had been observed, but these had been recovered from in a few days. In reference to the usual mode of tapping, he said that where this is done, death is pretty sure to follow, sooner or later, in most cases. He had tried tapping and allowing the canula to remain, recently, in two cases (See *Society's Records*, Vol. III., page 46), in neither of which was there any very unpleasant symptoms; in one, none whatever. To the latter operation there seem to be two important objections. 1st, the impossibility of ascertaining beforehand, with certainty, whether the cyst be single or compound, the former being alone likely to be benefited by the operation; there being also the same objection to the operation by the injection of iodine. 2d, the long and tedious suppurative discharge which the patient is necessarily obliged to undergo. He alluded to several cases of treatment by the canula, which had proved successful in the hands of Dr. Trowbridge. He further stated that he should not hesitate to employ the iodine treatment in cases of a single cyst.

Dr. Gay was evidently opposed to the operation by extirpation, except under favorable circumstances, and said that he had recently performed this operation only at the urgent request of patients.

March 9th.—*Cancerous Disease of the Pancreas.* The specimen was shown by Dr. C. D. Homans, having been received from Dr. Ellis, who furnished the following report of the case.

The patient was upward of 60 years of age. For more than thirty years he had been subject to cough, and had occasionally raised blood. During the winter he gradually failed. Two or three weeks before

his death he was attacked with fever and symptoms of effusion into the right pleural cavity. A week after, the feet became cold, and soon exhibited the appearances of commencing gangrene. At the time of death, vesication had taken place on the right foot, and one hand was attacked.

At the *post-mortem* examination, a large quantity of serum was found in the *right pleural cavity*. The corresponding *lung* was much compressed; the *left*, emphysematous; but neither was tubercular. Upon the *aortic valves* were reddish warty vegetations. Cancerous masses were scattered throughout the substance of the *liver*.

The *right half* of the *pancreas* was two or three times as thick as usual, very firm, and had lost all appearance of the usual structure, being of a dull or yellowish-white color, with some vascular points. The disease gradually blended with those portions which, though not healthy, still presented some traces of the original tissue. The *duct* had been raised by the growth of the thickest part of the disease, and was evidently much obstructed by it, as was shown by the dilatation behind.

On microscopic examination of the diseased portion, it was found to be composed of nuclei and cells, the latter very large and of every conceivable shape. Many of these contained round, transparent centres, so large in some cases that they occupied nearly the entire cell. They seemed to be the result of dilatation by some transparent liquid. The nuclei and nucleoli were not, for the most part, relatively large, although some were so.

The *posterior tibial artery* of the foot in which the gangrene had progressed the farthest, did not present any remarkable appearances.

But a brief account of the case has been given, as no symptoms were noticed before death which could be immediately referred to any disease of the pancreas. The latter was considered interesting, as but few specimens of cancer of that organ have been seen here, although Rokitansky states that it is a very common affection in connection with similar disease of other parts.

March 9th.—*Disease of the Brain; Convulsions; Death; Autopsy.* Case reported by Dr. C. D. Homans, who also showed the specimen. Mr. ——, aged 46 years, had always enjoyed good health, though the child of parents both of whom died of consumption. At 16 years of age, he fell and fractured the bones of his nose, the result of which was an inability to breathe through that organ afterward. He was a merchant in Calcutta until within a few years, but of late had resided in Boston. During his residence in the East Indies, he had an attack of what was called "sun-stroke," which confined him to the house for some time.

On March 4th, 1856, while sitting at his desk, writing, he had a severe convulsion, from which he recovered in the course of a few hours so as apparently to be as well as ever. He pursued his business, and continued well till March 31st, when he had two fits while at his club, more severe than that of the 4th inst. His struggles were violent, requiring the efforts of several persons to control them. The next day he was out, as usual.

April 6th, at the house of a friend, he had two convulsions, and was carried home; immediately after which, his mental faculties be-

came disordered; his memory of names of persons and things impaired; he imagined himself away from home, in another house, where he could stay but a limited period, &c. For some days he refused to eat, and the urine and fæces were discharged involuntarily. He soon, however, took food again regularly, and at the end of about three weeks he had recovered strength sufficiently to walk down stairs, having kept his bed previously. He then appeared insane, and it was necessary always to have a male attendant with him. April 25th he escaped from the house, and bought a country seat at auction, the purchase of real estate being one of the principal subjects his mind seemed to dwell upon. He would sometimes absolutely refuse nourishment, and again soon after take it; the tongue was slightly coated; pulse somewhat accelerated; there was a tendency to ulceration in the mucous membrane of the mouth; the skin was natural, save that there was some heat about the head. There was at times long-continued constipation.

June 15th.—At this time he appeared much better; he took his meals regularly, and his mind seemed to be tending toward a normal state. He was ordered to abstain entirely from animal food, but otherwise to live as those about him did.

July 4th, he seemed worse; complained of pain in his head, walked unsteadily, reeling backward; mind as bad as ever. Toward the last of this month he began to amend, and continued slowly to do so through August, so that by the middle of September he appeared to have perfectly recovered.

February 17th, 1857.—Mr. ——, the patient, came home with a violent pain in the head, accompanied with drowsiness. He arose the next day as well as usual, and continued so until February 21st, when on awaking he complained of great pain in the head; this pain he always referred to the vertex. He kept his room, and at 5, P.M., had two severe convulsions; at 8, another; and at 5, A.M., Sunday, a fourth. During this day he was well enough to come down stairs, and in the evening sat in his room conversing with an intimate friend. His mind was perfectly clear; he gave directions about his affairs, in case of death, which he anticipated might ensue at any time. At 9½, P.M., he lost his consciousness, and did not again regain it.

February 23d, at 2½, A.M., the convulsions recurred, and continued with short intermissions until Friday, at 9, P.M., numbering 170 in this time, according to the report of the watcher. Sometimes they would run into each other, and at other times there would be an interval of five, ten or fifteen minutes. A few times there were longer intervals, after which the attacks were more severe. From 12, Thursday noon, to midnight, there were 70 convulsions. They were general, affecting, however, the right arm and leg decidedly more than the left. The left eye was very much injected. After 9, P.M., Friday, the patient had no more convulsions, but lay in a comatose state till Sunday, March 1st, at 6, P.M., when death took place. On Friday morning there was a lucid interval, just long enough for him to recognize and shake hands with his family.

The treatment consisted in the administration of sulphuric ether to control the convulsive attacks; and nourishment and stimulants were employed whenever there was an opportunity for them to be swallowed.

[illegible].—Tuesday, March 31. 47 hours *post mortem*.

The body was of medium size, and not at all emaciated: *rigor mortis* well marked. In the thorax and abdomen nothing abnormal was noticed.

Head.—Nothing remarkable was found in the brain, save at the anterior part of the [illegible], just below where the skull is generally sawed in removing the calvaria, an inch and a half above the upper edge of the orbit, from the brain over a surface of one and a half to two inches in diameter was so closely adherent, the dura mater that the pia mater and a thin layer of the cerebral substance were left behind on the removal of the organ. The dura mater itself was readily raised from the bone, and no evidence of injury or disease was noticed in the latter.

In the [illegible] which had adhered to the membranes, and extending a short distance into the white matter were two distinct, [illegible] yellowish granular-looking masses, the largest half an inch in diameter. They adhered closely to the surrounding substance, which for several lines in every direction was filled with minute yellow points. Portions of the white substance, half an inch [illegible] of the mass, had a peculiar translucent appearance, as if [illegible] fibres in the interstices of which [illegible].

Microscopic Examination.—In the yellow masses, nothing was seen but a mass of granular matter and minute molecules of [illegible] which matched the yellow points with [illegible] the cerebral tissue if it existed [illegible]. In the translucent portions were exceedingly [illegible] forming an irregular network, which had [illegible] everywhere adhering.

Mania [illegible].—[illegible] Dr. J. Mason Warren remarks [illegible] in whom, [illegible] the treating, [illegible] spasmodic [illegible].

[illegible] of the result [illegible]. Some [illegible] remarks on [illegible] of the [illegible] which the [illegible] the fluid [illegible] the result of [illegible] his [illegible] which the [illegible] taken in [illegible] the symptoms [illegible] afforded [illegible] treating. [illegible] the mouth [illegible] in a distance [illegible] the disease.

In both of these instances had [illegible] treatment been.

or had reason to regret the operation. In but two cases, and those not in his own practice, but where he had been called in after the operation, had he seen any serious hæmorrhage; both these cases did well. In almost all of them the symptoms were at once relieved, the patient was able to take his food with comfort, to sleep better, and exchanged a pallid and depressed aspect, for a healthy and animated appearance. To the rapidity with which some of them had gained flesh, as soon as a proper amount of oxygen was allowed to penetrate to the lungs, many of the gentlemen present would bear witness. He could conscientiously say that he knew no minor operation in surgery that afforded greater relief and more satisfactory results than the one under consideration.

In answer to the question whether the tonsils were ever reproduced, requiring a repetition of the operation, Dr. W. said, that in four or five instances only had he been obliged to repeat the operation. The whole of the tonsil never is, nor ought to be, removed. When the enlargement is very great and irregular, it sometimes extends down the throat with a broad base, and it is not possible to embrace at once in the instrument, as much of the tonsil as it would be desirable to remove, and the apex only is excised. The consequence is, that the lower portion afterward rises up and comes into view, causing obstruction, and requiring another operation. These cases were, however, very exceptional.

The instrument that Dr. Warren had always used was the guillotine instrument, introduced into practice by Dr. J. C. Warren—made perfectly simple, without any needle, or spring to seize or drag out the part to be removed. The thick mucus of the fauces causes the portion cut off to stick to the instrument, so that it seldom escapes into the throat. The objection to those instruments which cut by pulling the knife out is, that they require to be kept constantly sharp, otherwise the tonsil may be dragged or torn out. The guillotine instrument does not require this, in fact it is better dull, causing less hæmorrhage, and possibly a subsequent greater destruction of that part which remains. His own instrument had been at the instrument-makers but once or twice for the last fifteen years. It was kept bright and in good order by not putting the blades together except when used.

In this connection Dr. W. said that he had once seen death occur from enlargement of the tonsils. A young man was brought into the Massachusetts General Hospital in a state of strangulation, and it was necessary to open the trachea to save him from instant death. Stimulating injections of brandy and water were given him, as he was unable to swallow, and by this means he was kept alive some hours, but finally died from exhaustion. It was subsequently ascertained that he had been confined some days on board ship with a sore throat, but no danger had been apprehended until the urgent symptoms came on, for which he was removed to the Hospital. After his death, the finger being introduced into the throat, revealed the cause of this result. The tonsils were so much enlarged as completely to fill up the posterior fauces, and were firmly wedged, one into the other, and had finally pressed down the epiglottis, entirely obstructing the passage of air to the lungs.—(*See Society's Records*, vol. i., p. 233.)

Dr. Coale *mentioned a case* reported by him eight years ago, in

which a child with this affection suddenly fell dead, the enlarged tonsils having become so wedged as entirely to exclude the air.

Dr. Cabot alluded to a case of enlarged tonsils in a child who had had scarlet fever. The patient was recovering, although the tonsils still remained enlarged and ulcerated. It, one day, asked for milk, which the nurse gave, contrary to orders, and after one swallow the child fell dead.

Dr. Cabot agreed with Dr. Warren as to the beneficial results of the above operation.

Dr. Minot was called, about eighteen months since, to a child 10 years old, apparently not more than [illegible], who was in a fit. This was caused by [illegible] and lasted four hours; the respiration being accompanied by snoring. Dr. M. examined the throat, and the tonsils proved to be enlarged. These were removed, and their removal was followed by a marked improvement in the health of the child, which before the operation had been subject to frequent fits, which had not since recurred.

Dr. Hayes had seen two cases in which the operation was necessary; in one of these, although high up at first, it required to be repeated five years afterward. In the other case, in which both tonsils were removed, it is now again in a condition to require removal. He thought the operation often highly beneficial in its effects.

[illegible] Dr. J. Mason Warren said that a number of years ago he had called the attention of the Society to a new affection, described by Velpeau under the name of [illegible], and described in English [illegible] in the transactions of the Society. [illegible]. He had just [illegible] A woman employed in wringing [illegible] was seized with a sensation in the back part of the arm [illegible] Dr. W. saw her on the [illegible] day. A swelling [illegible] extended up the arm [illegible] motion. On [illegible] being on the [illegible] removed. It was an [illegible] mistaken for that of [illegible] observed it. It had [illegible] paper, or dry [illegible] the long [illegible] of the head of [illegible]

[illegible] rest and anti-[illegible] by the friction [illegible] being ab-[illegible] injury.

[illegible] first related to [illegible] twisting [illegible]

[illegible] after the acci-[illegible] about twenty-four hours.

Dr. HOOKER had seen the same affection in the extensor tendon of the thigh—having been caused by a strain.

Dr. COALE had a case of crepitant tendon during the past winter, in a man who had been engaged in lifting heavy lumber. There was great pain in the part, and a crepitus as if two hard dry substances rubbed together. It yielded to the tincture of iodine, with which the part was painted very freely twice a day.

Dr. C. also remembered a case which occurred some years since, in which a woman was seized by her arm in sport, by her brother, a strong man. His fingers caught the arm on the outer edge of the biceps, and there compressed the nerve very strongly. The result was an inflammation extending down the sheath of the tendon of the biceps, accompanied with crepitation and a paralysis of the parts supplied by the external cutaneous nerve. The first symptom was relieved by the application of revulsives in a short time, but the latter persisted for more than a month.

APRIL 13th.—*Tumor from the back of the Head.* Dr. J. M. WARREN showed a very curious tumor, about the size and shape of the pancreas, removed from the head of a man 65 years old. It had been growing ten years, and adhered firmly to the scalp and periosteum. On being cut into, it presented a collection of cysts. The following is the report, by Dr. ELLIS, of the microscopical appearances. "The fragment of the tumor from the head consisted of a fibrous membrane, epithelium and amorphous material. The fibres of the first were quite coarse, and did not present the wavy or curled appearance of most of the fibrous tissues of the body. There were two varieties of epithelium, the cells of one being of medium size, rounded or oval, and showing a large, distinct nucleus after the addition of acetic acid. These lay in immediate contact with the membrane. The cells of the other variety were large, flattened, and more or less irregular. They made up the dull white portion, and are such as are seen in sebaceous tumors. The glue-like mass was amorphous, and contained a little cretaceous matter." This man also had on the top of his head two of the common encysted tumors of the scalp, which were removed at the same time with the other tumor.

The patient also says that, twelve years since, a tumor of a similar appearance was removed from the front part of his wrist. Shortly afterwards a fungus sprang out from that spot, and he now has, overlying the integuments of the fore-arm, a fungoid tumor of the size of a small tomato, which has a constant purulent secretion from it. It gives him no pain, and the only inconvenience he experiences is from the friction of the clothes over it when he uses his arm. As he thinks his health has improved since the appearance of this tumor, he declines having it interfered with at present.

APRIL 13th.—*Compound Comminuted Fracture of the Leg; Anterior Tibial Artery cut off; Delirium Tremens; Erysipelas; Amputation.* Dr. J. M. WARREN reported the case, and showed the bones of the leg partially united. The patient, two months before, was brought into the Hospital with a fracture of the leg, the anterior tibial artery being cut off by the sharp edge of the broken tibia. Compression checked the hæmorrhage. The patient was seized with delirium tremens, and

threw the leg about in every direction during the paroxysms. Erysipelas came on, followed by deep-seated abscesses. By means of the most unremitting care of the limb, and good diet, with the allowance of half a pint of spirit in the twenty-four hours, the patient revived; and at one time, by giving free exit to the pus, the abscesses as they collected being laid open largely, it was hoped that the limb might be saved. Complete serous and purulent infiltration, however, ultimately came on, requiring amputation, which was practised just above the knee. On examination of the bones, the appearances presented were instructive. The fractured fibula had united two inches above the fracture of the tibia. Two inches of the upper fragment of the tibia were denuded, and the end presented a sharp cutting surface. From the upper end of the lower fragment, two arms of bone were thrown out, embracing the lower one just above the denuded part. Thus a slight support had been established, which perhaps would have become strengthened in time, if it had been possible to have brought the soft parts into a sufficiently healthy condition to have allowed of resection of the denuded bone.

April 13th.—*Complete Absence of the Vagina and Uterus.* Dr. J. Mason Warren related the following very remarkable case, which had lately fallen under his notice. A patient was sent to him by a medical friend, Dr. Lane, supposed to have an occlusion of the vagina. She was 25 years of age, well developed, about five feet two or three inches in height, and had been married four years. She had never menstruated; and in this connection it might be mentioned, that her mother did not menstruate till the age of 21, after she had been married one or two years.

On examination, Dr. W. found what at first appeared to be a very small vagina, which would only admit, with much suffering to the patient, the little finger. The sensation imparted was as if the finger had passed through the tissue of an old cicatrix. Supposing this to be the vagina contracted from some inflammatory process, which had occurred at an early period of life, she was advised to go into the Hospital for further investigation. Having entered this institution, after the lapse of a few days the patient was etherized previous to an examination, both to save her feelings on the score of delicacy, and also to allow of any surgical operation, if one should be deemed necessary.

On inspection, the breasts were found to be well developed. The external organs of generation, the clitoris, nymphæ, &c., were normal; there was hair on the pubes. In the situation usually occupied by the vagina was an aperture large enough to admit the little finger, leading to a cul de sac beyond. No urethra could be found; and this aroused suspicion as to the true nature of the case. The finger was now passed into the canal, and the other hand being placed on the external walls of the abdomen, it was evident that both coverings, or rather both walls of the bladder, were not embraced between them. The finger being withdrawn, and a catheter introduced, the urine at once flowed through it, showing conclusively that this was the bladder, and that the finger had been passed through the dilated urethra. The finger being now introduced again as before, and a finger of the other hand passed into the rectum, no traces of vagina or uterus could be found; while the fore-finger of the left hand in the rectum could be

hooked, as it were, into the cul de sac of the peritoneum, and this dragged down nearly to the anus.

From the result of this examination, it was at once evident that no surgical operation could be of any benefit. Dr. Warren was disposed, however, to keep her under observation until the next menstrual effort; which, according to the patient's account, took place monthly, and was announced by pain in the back lasting four or five days. In case any rudiment of the uterus existed, it was thought probable it would be manifested at that time. She was therefore advised to remain in the Hospital to afford further observation of the case.

At the stated period, the usual pains came on at the lower part of the back and loins. On the second day she was again placed under the influence of ether, and was examined by Drs. Channing, Homans, Gould, Ware, Clark and Gay. None of these gentlemen could detect the slightest evidence of the uterus, or of any pelvic or abdominal tumor, although the complete muscular relaxation from the ether allowed the finger to be forced high up into the pelvic cavity.

The above case is interesting from the fact, that the patient presented perfect external development, accompanied by the usual sexual feelings, with a complete absence of two of the important organs engaged in the sexual functions. It may be added that no vicarious discharge of any description supplied the place of the menstrual secretion.

The case of a young woman may here be mentioned who consulted Dr. Warren some years since, and who had never menstruated. A sound was passed into the uterus, but no obstruction was detected. This patient had a vicarious bloody discharge from the rectum once in six weeks, lasting some days. Development and sexual feelings were normal.

Dr. Warren also reported in this connection the following case.

*Occlusion of the Vagina; Retention of the Menstrual Fluid.*—Miss A., 16 years old, was first taken about two years since with pains in the back and loins, such as precede the menstrual flux, which did not, however, appear. The pains have been repeated every month since, and have usually lasted three or four days. In January last, Dr. Cotting, of Roxbury, was called to her for a retention of urine, which was relieved by the use of the catheter. The same thing occurred in February and March. In April, while passing the catheter, it was found to encounter a resisting substance, and in order to get it into the bladder it was necessary greatly to depress the handle and elevate the point, to surmount the obstacle. Dr. C. then made a further examination, and discovered a round, hard tumor in the abdomen, and another projection into the rectum.

This patient was seen by Dr. Warren, with Dr. Cotting, on the 26th of April, who confirmed Dr. C.'s opinion as to an occlusion of the vagina, and a great collection of the menstrual fluid in the uterus. It being inconvenient to treat the patient at her own home, it was decided by the friends to send her to the Hospital where she might be under Dr. W.'s care.

Previous to the operation the following were the phenomena elicited

by an examination. A cul de sac about half an inch in depth constituted the vagina, at the lower part of which was a white line, or puckering, perhaps a cicatrix, the result of some previous inflammation. A catheter could not be passed directly into the bladder, as it encountered an elastic substance, and it was necessary to elevate the instrument almost perpendicularly to introduce it into that cavity. In the rectum a large tumor was to be felt, two inches or more from the anus, nearly filling the pelvis. It was almost as hard as a fibrous tumor, and not elastic. A large tumor could be distinguished in the abdomen, extending just above the umbilicus, and the patient said that occasionally she could feel two lateral tumors. During the past month the pains had been incessant, as if for the expulsion of some substance from the body. The sister states, in explanation of the cause of the obliteration, that she had heard the parents say, that for a long time when the child was two or three years old it had been affected by an ulcer in that region.

The patient being etherized, and the bladder emptied, a free transverse incision was made across the cul de sac, and with a little dissection a delicate bladder-like substance was brought into view. Pressure being now made on the abdomen, and the pelvic tumor made tense so as to project through the incision, a large trocar was plunged into the cavity, and at once a thick, tarry fluid began to flow slowly out. The finger was now gradually insinuated, a bistoury introduced, and the opening enlarged so as to leave no feeling of constriction in any direction. The fore-finger being passed freely into the cavity could detect no sac, but the walls of the pelvis could be felt on all sides, the collection of fluid having been so great as to distend the uterus to its utmost capacity, and render its walls so thin that they could scarcely be distinguished. She was placed in bed, and the fluid allowed to escape gradually, which it continued to do during the day. About a quart of fluid escaped, which at once coagulated, expelling but little serum. Dr. Ellis made the following microscopic observations. "The menstrual fluid removed from the vagina contained epithelium cells; yellow, granular corpuscles, of various sizes; blood globules, evidently recent; and very small, translucent globules with distinct, though pale, outlines." On the following and second days the os uteri was observed to be slowly forming itself, and the thick walls of the uterus could be detected.

The patient is now rapidly recovering.

Dr. H. J. Bigelow mentioned the case of a young lady who was subject to a monthly feeling of fulness, unaccompanied by any menstrual discharge. On examination, there was found an obliterated vagina, this ending in a cul de sac an inch deep. Dr. B. supposed the uterus to exist, and to be pushed up by a large sac of menstrual fluid. He found that a sound passed into the bladder could be felt in the rectum, for an inch and a half, a membranous wall alone intervening, which proved that the vagina was congenitally obliterated to that extent, and that its two imperforate extremities were at a distance from each other and not in contact. Under these circumstances he advised delay of operation for a time, to ascertain whether the increased distension of the upper sac would not bring it more immediately in contact with the lower cul de sac, and thus render the operation more practicable and safe.

April 13.—*Encysted Tumors of the Lid, following the introduction f Lime into the Eye.*

Dr. Bethune related the case of a man under his charge who was ttacked with severe adhesive inflammation of the conjunctiva of the lobe and lids, resulting in destruction of the sight and union of the ds to the globe. After this had healed, there appeared an encysted mor in the upper lid. This was removed, and was found to be made p of a thin cyst containing an oily fluid. Soon after, another made s appearance in the neighborhood. The application of the tincture f iodine was tried, and the tumor has become softer, less defined, naller, and is apparently dispersing.

April 27th.—*Discharge from the Vagina of numerous large bodies f Epithelial Formation.* Dr. Jackson showed the specimens, which ere brought to him by Mr. T. H. Gibby, of Nashua, N. H., a mem- er of the late medical class. The patient is about 44 years of age, a allid, fleshy, bloated-looking woman, who had never enjoyed good ealth, exceedingly nervous, and subject to a variety of anomalous nd distressing complaints. She was married a few years ago, but ever had had sexual intercourse on account of a contracted state of e vagina. Since her marriage she was treated by an empiric for bout eighteen months, and used occasionally strong vaginal injec- ons. During this time mainly the bodies referred to were passed, few having been passed last autumn; the number altogether has een ninety-six. For the first three months, they came away with gularity once a month; afterward more frequently, and at last seve- l were passed in a week. The three or four specimens shown to the ociety, look much as if they might be casts of the interior of the fun- us and body of the uterus, being from about 2½ to 3 inches in length, ½ inches in width, and from ¼ to ½ inch in thickness; rounded at one nd, with almost a smooth regularity, but having a rough torn look at e other extremity; the surfaces are nearly regular; they are fleshy o the feel and to the naked eye, and look as if they might consist of ackages of thin membranes closely compressed. The first that pass- d were larger than any that have passed since; but the specimens ow shown are of about the average size. These last are quite opaque nd have somewhat of a reddish discoloration, being, as the patient ays, stained by the injections that she has used; she reports them, however, as having a pearly, semi-transparent appearance when passed.

Menstruation in this case commenced at the age of 19, has been generally more or less irregular, and has been entirely absent since about two years before the discharge of the bodies just described. She had had much dysuria for many years, with bearing-down lumbar pain, but not much leucorrhœa.

Dr. Shaw stated that these masses were composed of epithelium, such as is found lining the vagina, viz., large nucleated scales. Each layer was of about the thickness of a lettuce leaf, and much resem- bled this plant in being dark colored externally and lighter internally. What change, however, had been effected by the spirit in which they had been preserved, is unknown. There were apparently several lay- ers, reflected upon themselves in all directions, but it is not impossi- ble that they might have been resolved into one. The masses were flat, rounded and smooth at one extremity, and presented the free,

rough ends of the layers at the other—in form like the vagina. A fragment of lymph imbedding pus-corpuscles was traced from the surface of one into its interior. Upon chemical examination they likewise proved to be animal growths.

Dr. Bacon stated that the chemical re-actions prove the absence of cellulose, of which vegetable cellular tissue is composed; and indicate that the substance is albuminous, or belongs to the so-called protein group of bodies. As the albuminous bodies in plants never form cell-walls, and the substance in question has the microscopic characters of epithelial tissue, which is albuminous, there can be no doubt of its animal origin.

April 27th.—*Abdominal Pain caused by Coffee and Tea.*—Dr. Coale related a case in which the patient was otherwise in good health, though with some tendency to derangement of the bowels. Upon rising in the morning, he would feel perfectly well and vigorous, and would so remain until about an hour after breakfast, which meal was always light and simple, and always followed by a good, free discharge. A pain would then commence below the epigastrium and gradually extend itself laterally—sometimes radiating downwards, apparently through the small intestines, but its chief seat being horizontally across the abdomen above the umbilicus. In its character it was very peculiar, not remarkable for its intensity, but yet horribly agonizing. Sometimes there would be very little of it, and yet that little would distract the attention and exhaust the strength far more than much severer pains in other parts, and of a different character. It was accompanied even in its mildest form, with a degree of irritability of temper entirely disproportionate with the exciting cause. There was also, during the persistence of the attack, not an inability, but an indisposition to take inspirations of the usual fullness, though it was not in the slightest degree painful to do so; indeed, when the impulse to inspiration was felt, it was felt that it should be compensated by one of unusual depth, and did not cause the slightest aggravation of suffering. Only the attack got to its height in a half hour, lasted in full strength for an hour and a half more, and then began to subside, so that by eight o'clock between one and two o'clock, leaving [illegible] the attack [illegible] of unusual [illegible] nervous [illegible] meat, was [illegible] was passed not only free from [illegible] strength.

[illegible] was found [illegible] the bowels were [illegible] over the ab- [illegible] There was no [illegible] This was [illegible] having some [illegible] attacks of [illegible] inflammation [illegible] the in- [illegible] a fluent, was [illegible] mark of [illegible] was [illegible] appearance. The

was varied, and to a great degree, but without any results. imes the bowels might be disturbed by cold or by indigestible causing diarrhœa and pain; but this seemed to be independent l separate from, the other trouble.

remedies were but two. Thinking that the trouble might be liver, and that though this organ appeared to be doing its work, might be congested, blue mass and taraxacum were taken, but ut benefit. Opiates were used occasionally during violent at- but owing to unimpressibility of the subject, even in large doses ad very little effect—not enough to pay for their after effects. olic stimulus was tried during the paroxysm, and never with fect of lessening the pain, while sometimes it evidently increased t replaced, however, the nervous energy expended, and thus, at ose of an attack, sometimes gave comfort.

s was the state of things when the case was presentedto Dr. John , who, remarking that the attack was too late to be caused by a of the day before, and too soon to be explained by the solid t breakfast, thought the offending substance must be sought in quid, and consequently more readily diffusible, portion of the eal. This was coffee, which was at once given up, tea being tuted. For two days the attack failed, but then returned, and was about to be resumed as not being the offending cause. Dr. then suggested that tea used strong, and a pint at the meal, produce the same effect as coffee. This was also given up, and nd water substituted. Freedom from pain was not experienced the third day, but since then it has not been felt, except when by ertence, or, as has been done three or four times as a test, coffee has been taken at breakfast, when the pain would return in a e proportioned to the amount taken. This has been tried, Dr. C. ht, sufficiently often to establish the fact beyond all doubt, that use of this peculiarly agonizing affection was the use of these miliar articles of food.

ay be considered strange, however, that coffee has been taken in the evening, and tea is taken every evening, without produc- y bad effect. Possibly this may be from the fact of its not be- strong, or taken in such large quantity, or from its being re- d into the stomach still partly occupied with the remains of the r.

RIL 27th.—*Diffuse Inflammation of the deeper-seated Tissues of the ; Purulent Absorption; Autopsy.*—Dr. STORER read an account e case, which was sent to him by Dr. BEMIS, of Medford.

Bemis was requested to see the patient for the first time, on the ng of the 29th of March. He found a boy of about 14, of a ally scrofulous appearance, complaining of severe pain in the left which was the affection for which advice was requested. This he only complaint made. On inquiry, it was found that he had out every day till then, and on the 27th or 28th, had carried a basket leaning on the hip; which, he supposed, to be the cause trouble. Dr. B. afterwards ascertained that two or three years he received the kick of a horse on that part, which, however, gave little trouble. The pulse was slightly quickened. The pain d quite severe; there was, however, little or no swelling or

heat, and but little tenderness. Motion of the joint much increased the pain. Dr. B. suggested that there might, very probably, by and by, be abscess in the part.

As the bowels had not been moved for three or four days, some laxative medicine was directed before he should take morphine; and as it was then evening, leeching was postponed till the next day. In the mean time, he was ordered to cover the joint with a fomentation of poppy leaves.

On the following morning, he was reported to have had eight or nine dejections, and to have taken, once or twice, small doses of morphine. He was generally rather more comfortable; the pain in the hip somewhat less, with slightly more swelling. Pulse, rather below par. Dr. B. thought it best to omit the leeches, but the patient was directed to continue the opiate sufficiently often to keep the pain in check.

March 31st and April 1st, he was about the same; able to sit up part of the time, but with a good deal of pain about the hip—without much swelling or heat.

On the morning of the 2d, the pain in the hip was much less, but there was *great* pain, tenderness and swelling in the wrist of that side. The pulse was much quicker, and there was more general heat. A laxative was ordered, and to the morphine was added colchicum in powder, in the proportion of three grains of the latter to one-eighth of a grain of the former. This was to be taken every four hours, and the elixir of opium in the intervals, if the pain was severe.

On the 3d, the wrist was easier, but there was pain, swelling and tenderness in the *ankle* of the other side—the hip and wrist continuing very tender, but freer from pain. On the next day, there was pain and swelling in the muscles of the right side of the jaw; the ankle was less painful; the wrist and hip much as on the 3d.

Early on the morning of April 5th, the patient was looking generally worse; was much more restless; the respiration was somewhat quickened; the pulse rather over 100; and he complained of some pain in the left side. No abnormality in the sounds of the heart could be detected. Dr. Storer now saw him in consultation. There was very little swelling about the hip—certainly no boggy feel or fluctuation. Auscultation revealed no abnormality in the chest. He had a dejection, and the opium and colchicum were continued, as advised by Dr. S.

In the evening, the patient became more restless and slightly wandering. Pulse 110.

He died early on Monday morning—having just gone back to bed after sitting up in a chair.

*Autopsy* by Dr. Ellis.—Just beneath the pleural surfaces of the *lungs*, particularly of the upper lobes, were yellowish spots from one to three lines in diameter, surrounded by blackish areolæ. On cutting through these, but very little if any softening was noticed, certainly no distinct purulent deposits—though they were at once considered the result of purulent absorption. In the deeper seated parts of the lungs were similar appearances, though the color was more reddish. The pulmonary tissue in other respects was normal.

The fluid in the *pericardium* had a somewhat purulent look. Nothing remarkable was noticed in the *heart* or its contents.

The *abdominal organs* were healthy.

In the deeper-seated muscles, and between the periosteum and the bone of the *thigh*, at its anterior and inner part, extending from the trochanter major nearly to the knee, was a collection of pus, not large, though spread over so wide a space. No better idea of the quantity can be given than by stating that it was wiped away with a sponge as the incision was prolonged down the limb. The muscles nearest the bone were infiltrated with this, or formed a portion of the walls of the abscess. The *periosteum* was separated from two thirds of the circumference of the bone at the upper part, and partially destroyed. Below, the line of separation ran inward and downward nearly to the knee, the membrane, though raised, being still firm and white. The *bone* itself was perfectly smooth, but at the upper part somewhat bluish. The pus had separated, for a short distance, the articular cartilage from the head of the femur, but the *hip-joint* showed no signs of inflammation.

Dr. Storer stated, in reply to Dr. Cabot, that the patient had not, to his knowledge, suffered any injury of the foot or leg, nor had any erysipelatous affection.

Dr. Cabot alluded to the case of a child in which there was deep-seated pain in the thigh, and afterward fluctuation; and an opening having been made, the bone was found denuded of the periosteum for the space of four inches. In this case, it was ascertained that the child had previously injured the foot with a board-nail, and that there had been a blush extending up the leg.

Dr. C. E. Ware referred, in this connection, to two cases of periostitis reported by him some time since, which may be found on page 50 of the second volume of the Society's Records.

April 27th.—*Typhoid Fever; Death from Hæmorrhage from the Bowels; Sacculated Bladder.* Case reported and specimen shown by Dr. C. D. Homans.

The patient from whom this specimen was taken, was a gentleman 63 years of age, of medium height, and quite fleshy. When about 30 years old, he began to complain of shortness of breath and an uncomfortable sensation of fulness about the region of the heart, coming on, at first, after violent exertions, but during the last ten years of his life being nearly constant, amounting at times almost to pain.

During the last twenty years, he was troubled with uneasiness and pain in the lower part of the abdomen, accompanied with frequent and difficult micturition. Toward the end of his life these symptoms were greatly aggravated. In January, 1854, he had a paralytic stroke, the parts affected being the right hand and arm and right side of the face. In two months he had recovered, save that always afterward he complained of a sensation of general fatigue and weakness, and increased irritability of the fauces. June 3d, 1856, after a journey to the South, he complained of restlessness, and appeared very feeble without any marked symptom. June 28th, he sent for his physician, Dr. John Homans, who found him with symptoms of well-marked typhoid fever, and much prostrated, though not entirely confined to his room. His symptoms, however, were soon much aggravated, so that he was obliged to take to his bed. July 10th, at 4, P.M., he was attacked with hæmorrhage from the bowels, continuing till about 6 o'clock on

the following morning. He was somewhat weakened by this, and though he seemed, after two or three days, to have improved in strength, yet he never was so strong as before the attack. His bowels were inclined to constipation, though at times he would have a loose discharge. Meteorism was slight, and there were no nervous symptoms. The mind was always clear and equable. The treatment consisted in the administration of cooling mixtures, diluents, &c.; after the first attack of hæmorrhage, the tinctura acidi sulphurici was given, and seemingly with benefit. Stimulants were allowed from the beginning of his sickness, such as brandy and water, claret, &c., there having been a tendency to prostration from the outset. His pulse was never very much accelerated, generally ranging from 80 to 90 beats in the minute.

July 20th, hæmorrhage again occurred from the bowels, and did not cease until his death on the 21st, at 4, P.M.

A few days before death, an elastic tumor was discovered in the left iliac region, extending from a point opposite the umbilicus into the pelvis, somewhat indistinct on account of the size of the abdominal parietes. This was suspected to be the distended bladder, but as the patient refused to have a catheter passed, and micturition seemed sufficiently free, the state of this organ was not diagnosticated during life.

*Autopsy*, 20 hours *post-mortem*, the body having been preserved in ice. *Externally*, there was some degree of rigidity; no emaciation.

The *head* was not examined.

*Thorax.*—The *pericardium* contained the normal amount of fluid. The *heart* was somewhat enlarged; the *right cavities* contained some fluid blood, but no coagula. The *left cavities* were empty. The free edges of all the *valves* on each side of this organ were thickened by atheromatous deposit, this being most marked in the *mitral* and *aortic valves*. The commencement of the *aorta* was slightly dilated and stiffened by atheromatous deposit. The *left lung* was very much congested; some portions in the lower lobe toward the back being entirely destitute of air, breaking down under the fingers and sinking in water. The corresponding *pleural cavity* contained a small quantity of bloody serum; there was no appearance of inflammation; no deposit of lymph. The *right lung* crepitated throughout, and was in a normal condition, save that it was somewhat congested.

*Abdomen*.—The *spleen* was much enlarged and very friable; the *liver* normal; the *stomach* not remarkable. The *intestines*, both small and large, contained a great quantity of fluid blood and soft coagula. The *small intestines*, with the *cœcum*, were opened. Nothing abnormal was noticed, save in the last 2½ feet of the *ileum*. In the upper part of this portion, the *Peyer's patches* and *solitary glands* were very well marked, and in some of them small ulcers had formed. In the last eighteen inches were twelve spots of ulceration in Peyer's patches, varying in size from the head of a tack to an almond, the largest being nearest the cœcum, which itself was healthy, though distended with blood. One of these ulcers had penetrated nearly through the muscular coat of the intestine. This was situated about ten inches above the cœcum, was oval in shape, in the centre of a patch, and in size about two thirds of an inch by half an inch, not being one of the largest.

*Bladder.*—In the lower part of the abdomen was a large elastic tu-

mor, evidently the *bladder*, filling up the whole pelvis and extending as high as the umbilicus. This was divided by a constriction opposite the left sacro-iliac synchondrosis. On incision, about 2½ quarts of urine were taken out. The lower portion was then found to consist of the bladder very much enlarged, its walls thickened, and the muscular fibres strongly developed. In the *fundus*, and toward the left, was an orifice about 1½ inches in diameter, conducting to a sac considerably larger than the organ itself, which had contained the greater part of the urine. This was principally situated in the left iliac region; its walls were quite thick, and the muscular coat well marked. Adhesions had formed between the posterior and lateral portions of the bladder and the neighboring parts, but not anteriorly. The *mucous membrane* of the organ was reddened in spots, but there was no ulceration. The *prostate gland* was found to be much enlarged, principally in the centre. From one side to the other a bridle ran across, apparently part of the prostate, under which the urine was forced to pass by a much narrowed channel, thus accounting for the hypertrophy of the bladder, &c. Both *ureters* and the *pelves* of the *kidneys* were dilated, but with this exception the latter organs were in a normal state, save that they were rather soft.

April 27th.—*Hypertrophy of the Heart; Contraction of the Mitral Valves; Marked Effects of Digitalis; Death; Autopsy.* Dr. Ellis showed the specimen, and the case was reported by Dr. Gould.

The patient, C. R., was a German woman, aged 32; of small size; married. She had been troubled with shortness of breath for two years, and with occasional pain in the left breast. Since Christmas she had been gradually growing worse. She had never been confined to the bed; had never had rheumatism; and had had no cough till within a few days. Swelling of the abdomen and limbs commenced four or five weeks since. The urine had been rather scanty. On the 9th of March, when Dr. G. first saw her, the respiration was labored, and numbered 36 in the minute; the pulse 114, and feeble. She was unable to lie down. The left chest was resonant, with a loud respiratory murmur at its apex; in the right, the murmur was nearly inaudible. The first sound of the heart, very loud and double; second, feeble. The hands were cold and livid; the abdomen protuberant, being much distended with flatus; the feet were much swollen; the cough was moderate, and the expectoration consisted of frothy mucus. Pulse 120. Urine not albuminous.

The spirit of nitric ether and bitartrate of potash were given, and, on the 15th of March, the cough had diminished, the murmur was less audible, and the resonance pretty good, the pulse varying from 100 to 108. The tincture of digitalis was now ordered, in the dose of 30 drops, three times a day; the pulse gradually became diminished in frequency under its influence, being, on the 27th, only 62. The dose was now reduced to fifteen drops, the pulse continuing to diminish, being, on the 29th, 54; the dose was now reduced to twelve drops. April 2nd, the pulse was only 44, when the medicine was ordered to be omitted. On the 3d and 4th, it continued about the same. On the 5th, it was 80, and intermitting; on the 6th, the skin was livid and cool, the respiration 60, and the patient died on the morning of the 7th.

*Autopsy*, 13 hours after death, by Dr. Ellis.

The *brain* was normal.

The *right pleural cavity* contained three pints, and the *left*, one pint and a half of serum. The pleural surfaces of the right side were united by old, strong, filamentous, vascular bands, considerably elongated.

The lower lobe of the *right lung* was smooth and rounded, its lower edge being folded over and adherent; it was compressed to such a degree that portions sank in water. The upper lobe was crepitant; weight, 14 ounces. The lower lobe of the *left lung* was somewhat compressed inferiorly; the remainder of this and the upper lobe was crepitant; weight, 13½ ounces. Both lungs were dry, and firmer than usual.

The *pericardium*, externally, measured vertically, 7 inches; transversely, 6 inches, and contained eight ounces of serum.

The *heart* was large, and distended by blood, much of which was coagulated; weight, 13 ounces. Both *auricles* and the *right ventricle* were hypertrophied and dilated, the walls of the latter being as thick as those of the left ventricle, and firmer. The *columnæ carneæ* were much thickened. The *left ventricle* appeared in every respect natural. The *mitral valve* was much thickened, and its orifice admitted only the tip of the fore-finger. Near the free edges of the valves of the aorta and pulmonary artery, were several perforations, which could not have interfered with the performance of their functions. The *pulmonary artery*, just above the valves, was 4 inches in circumference; the *aorta*, at the corresponding point, 2⅜ inches.

The *peritoneal cavity* contained nine pints of serum.

The *liver* was rather dark colored, and weighed 2 pounds, 2 ounces.

Just beneath the convex surface of the *spleen* was an irregular, yellowish white mass, of considerable consistence, two inches in length by one in breadth, continuous and connected with the surrounding tissue, which was not remarkable. Weight, 4 ounces.

The *kidneys* were small and firm.

The *uterus* was very firm, and there were several small cysts in the *ovaries*.

April 27th.—*Tubular Pregnancy.*—This case occurred under the care of Dr. S. D. Brooks, Superintendent of the State Almshouse at Monson, and his assistant, Dr. Hastings. The specimen, which was brought to the city by Dr. James Holland, of Westfield, and has been presented to the Museum of the Medical College by Drs. B. and H., was exhibited to the Society by Dr. Jackson, with the following report of the case by Dr. B.

"Sarah Kewin, admitted into this Institution Dec. 20, 1856, aged 25 years; born in Ireland; naturally healthy and vigorous; married, and mother of one child about two years old. The first that was known of her being unwell, was Feb. 1st, 1857, when she applied for something to relieve her of what she called 'piles.' At this time she complained of constipation, and severe pain through the pelvic region and rectum, on going to stool. She stated that she had experienced more or less pain of the kind, on evacuating her bowels, for four or five weeks previously, and thought the difficulty increased. Aside from this, there never were, neither had been, any indications of illness, either in her appearance or history up to this date.

"On the morning of February 13th, she arose and dressed herself,

feeling as well as usual; she soon went to stool, and immediately after an evacuation, she was seized with severe pain of the character and in the same location which she had described before, only more intense. In about half an hour after, Dr. Hastings, the assistant, saw her, and investigated her case more fully than before. At this time the pain did not subside as before, but was continued; there was no tenderness on pressure over the abdomen; the pulse was not much disturbed; the tongue was clean, and the countenance indicated a great deal of suffering. She had passed two menstrual periods, although she did not regard herself pregnant. Opiates were administered, from which she obtained relief from pain, but continued in bed till 2 o'clock, P. M., when she arose, dressed herself, and walked down one flight of stairs into the office; regarding the attack like other previous ones, only more severe. She soon, however, became faint, vomited, and immediately removed to the Hospital. The pain returned with increased severity; pulse frequent and small; face and lips colorless. Stimulants and opiates were administered, and applications were ordered to the bowels and extremities. At 6 o'clock, P. M., the pain was less severe; pulse frequent and feeble; nausea; some tenderness on pressure; abdomen resonant on percussion. At 10, P. M., the pain continued to abate; pulse much the same; tongue slightly coated; considerable tenderness above the pubes; thought she should rest well through the night.

"*February* 14*th*—6, A. M.; rested quietly till 5 o'clock this morning, when she awoke, saying she felt better. Soon after, she arose, got on to the stool, fainted and was removed to the bed, where she gradually sank, and expired about 10 o'clock, A. M., being about 28 hours from the attack. At this time the abdomen was distended, and dull on percussion over the lateral portion.

"*Autopsy* 12 hours after death. On opening the abdomen, the peritoneal cavity was found filled with blood, which was carefully removed by the sponge. In exposing the *uterus and its appendages* (which process was conducted with exceeding caution, in view of determining the source of the hæmorrhage, especially as those organs had been previously regarded as the seat of the trouble), the abnormal portion of the tube containing the fœtus lay by the left side of, and partly over, the rectum. It had formed for itself partially, a cavity, in which it lay—part of it extending upward and over the rectum, so that a portion of it was anterior to it.

"I think there could not have been any visible hæmorrhage from the uterus, or any thing which could have been confounded with the catamenia, or she would have mentioned it in connection with interrogatories pertaining to that function. She had passed two regular menstrual periods, and governing our opinion by her own account, she must have been in the third month of pregnancy. I think the rupture must have been occasioned by the straining and effort in evacuating her bowels on the morning of the 13th, when, for the first time, hæmorrhage internally ensued. The rupture of the tube might have been enlarged by similar subsequent efforts, but I do not think the extent of it was increased in the course of the examination."

The specimen had been well preserved in spirit, and the following facts were noted. The uterus was three and three-quarters inches long, two and three-quarters inches in width, and its parietes three-

fourths of an inch thick. The decidua was strongly marked; the *cervix* was filled with viscid, transparent mucus. The *ovum* was in the right Fallopian tube, measuring two by one and a quarter inches; the tube was extensively lacerated, the membranes projecting through the fimbriated extremity, which was not involved in the laceration, and in the form of a thin cyst, two-thirds of an inch in diameter. The *chorion* was mostly free from villosities, and through it is very distinctly seen a fœtus, apparently as large as usual at from two and a half to three months. Three longitudinal incisions were made carefully and with a sharp scalpel through each ovary, and each section was cut up transversely, and so completely as to give the whole a fringed appearance, but no trace of a *corpus luteum* was found in either. The absence of a corpus luteum in this and in some other cases of gestation, and the circumstance of its being occasionally found in one ovary when the fœtus evidently came through the other tube, shows that there is something yet to be learned in regard to this body.

In connection with the above case, Dr. Jackson referred summarily to five others which he had had an opportunity to examine anatomically and in a recent state.

1st, Dr. Fisher's case; the specimen in the Society's Cabinet, No. 711. The fœtus is three-fourths of an inch long; is in the right tube. The uterus is three and a quarter inches long; no well-marked decidua. The patient was a lady æt. 18, married ten weeks; catamenia came on the day after marriage, again in two weeks, and often afterward; profuse. The patient died in twenty hours after an attack of flooding, and with symptoms of collapse. Three quarts or more of blood in the peritoneal cavity.

2d, Dr. Shurtleff's case; reported to the Society by Dr. Storer. The fœtus is four and a half inches in length; is in the right tube. The uterus is four and a half inches long; internal surface quite soft. The patient was æt. 32. Had had flowing for the last two months, followed by syncope. The abdomen was tender, and peritonitis occurred a week before death. She was so far relieved as to be able to go out of doors the last three days. She lived about three and a half hours after symptoms of internal hæmorrhage came on. Nearly two quarts of blood were found in the peritoneal cavity; and lymph, the result of inflammation. This is the only case in which peritonitis has been observed.

3d, Dr. Flint's case. No fœtus nor cord was found, though the amnion and chorion were well marked; in the right tube, which was distended to the size of the last joint of the finger; no decidua in the tube. The uterus three inches in length; not much relaxed; no decidua; *corpus luteum*, seven by five lines. The patient died in twenty-four hours, with symptoms of internal hæmorrhage, having been as well as usual previously. The abdomen was full, but not tender nor painful, and was exceedingly tumid after death; three quarts of blood existed in its cavity.

4th, Dr. Buck's case. The fœtus was three eighths of an inch in length; in the left tube, which was distended so as to form a tumor two by one and one fourth inches. This last consisted mainly of effused blood; but the amniotic fluid was quite clear. Uterus three and a half inches long; *corpus luteum* in the left ovary. The patient, an Irishwoman, æt. 24, was married in April, 1842. The catamenia oc-

curred a week afterward, but there was no further discharge until a few days before her death, which took place on the 10th of July. Having been beaten by a brutal husband on Thursday night, she soon had pain in the abdomen, with faintness, and she died on Saturday, P.M. There were five pints of blood in the peritoneal cavity.

This case was seen in consultation by Dr. Jacob Bigelow, and correctly diagnosticated. Only three weeks previously, No. 3 had occurred; the case was reported, and the specimen shown to the Society; and nothing could show more strongly the advantages the profession may derive from the formation of medical societies.

An interesting fact that was observed in this case, and that may have an important bearing on the question of the cause of the arrest of the ovum in the tube, was an apparently perfect obliteration of the cavity of the tube between the ovum and the uterus. This point Dr. J. has not examined in any of the other cases, and he has not seen it referred to in any published case. Something like a tube could be felt, but on cutting down upon it no tube could be found. Between the ovum and the fimbriated extremity the cavity of the tube was quite free, and its parietes were distinctly traceable to a considerable extent over the ovum. It would not be a very remarkable circumstance if a portion of the tube should become obliterated, as the result of former inflammation, though it is lined by a mucous membrane; analogous cases are found in the cystic and lachrymal ducts and in the ureters. And if it be suggested that an obliteration may take place subsequently to the arrest of the ovum, it is difficult to conceive of its becoming so complete as it was in the present case in the course of not more than two months. It is to be hoped that this point will be attended to in future cases. It is certain, as remarked by Dr. Putnam, that it would be impossible to conceive of an ovum being impregnated when the tube upon the corresponding side is obliterated; at least, according to our present physiological ideas.

5th. Dr. Perry's case. The fœtus weighed two pounds, and was thirteen and one fourth inches long; spine, six and a half inches long. In the right tube, which formed a large cyst, containing a dirty bloody fluid; the placenta was closely adherent. Uterus four inches in length; no decidua; no *corpus luteum* in the right ovary. The patient was 34 years of age, and had been married eleven years, but had never before been pregnant. She considered herself, at the time of her death, as in the 6th or 7th month of pregnancy: had suffered much, and for the last six weeks had had purpura, with hæmorrhage from various parts.

It was evident, in this case, that hæmorrhage had taken place into the cavity of the tube long before death, though there was no rupture of the tube, and no hæmorrhage into the peritoneal cavity. The occurrence of purpura in this case, in connection with the profuse hæmorrhage that so generally occurs into the peritoneal cavity, and from so very small an opening, is certainly a very interesting pathological fact.

It will be observed that, in the above six cases, the ovum was in the right tube in five, whereas it has been remarked that it is usually found in the left.

MAY 11th.—*Siliceous Calculi from the Bladder of an Ox.* Dr. BACON exhibited a large collection (over 600) of very small cream-color-

ed calculi, which were found by Dr. J. B. S. Jackson, adhering slightly to the interior of an ox-bladder. The largest measure about a line in diameter. Nearly all are regularly spherical, with a smooth surface. They are sufficiently hard to scratch flint glass. Some exhibit indistinct concentric layers, but no crystalline structure occurs in any. On chemical analysis, by Dr. Bacon, they are composed of silicic acid chiefly; with a little animal matter, partly fat; a little chloride of potassium, and traces of other potash and soda salts. Boiling nitric acid slowly penetrates the calculi, and dissolves out the organic and saline matters, rendering them translucent. After this treatment, they retain the original form and hardness; and when washed and dried are quite white, and consist of pure amorphous silex. The specimens in the tube-vial exhibited have been thus treated. Traces of silex occur in the normal urine of the ox and various other animals, and have also been found in that of man; but genuine siliceous calculi are of exceedingly rare occurrence.

May 11th.—*Adhesion of the Gall-bladder to the Duodenum, followed by Ulceration; the passage of a Gall-stone into the Intestine, causing Obstruction and Death.* Case reported by Dr. Ezra Palmer.

Mrs. M., æt. 43; became a widow in 1848; she was the mother of three children, the youngest being 13 years of age; she was of medium height and vigorous frame; her complexion was dark-sallow.

During the year 1856, complaint was frequently made of distress at the pit of the stomach, not sufficiently severe, however, to interfere with the performance of her duties, or to curtail her liberty. Without exhibiting distinctive evidence of dyspepsia, she was, nevertheless, supposed to suffer from some sluggishness of the digestive organs, and was correspondingly treated.

On the 17th of January, 1857, she was seized with violent intestinal pain, referred at times to the pit of the stomach, then to the umbilical region, then to either side of the abdomen. It occurred in paroxysms, and was complicated with much retching and vomiting. The pulse was not accelerated. The seizure appeared to be ordinary colic. Relief was obtained in a few hours, and by the third day following the attack she was able to be about her chamber.

After an interval of seven days, on January 26th, these violent paroxysms of spasmodic pain recurred. The attack resembled the preceding one in all respects, with the exception of having a longer duration and being followed by a more protracted convalescence. The patient was confined to her chamber for eight days.

After the lapse of thirty days, on March 5th, a third seizure occurred. Relief from the intense pain was soon procured, but the patient had a still more prolonged convalescence, being unable to leave her residence for about five weeks.

After a condition of comparatively comfortable health for twenty days, a fourth attack occurred April 29th, of far greater severity than either of its predecessors, with more intense paroxysmal pain, severer retching and vomiting; constituting that condition of agony, in fact, which characterizes the extremer attacks so graphically termed the iliac passion. Morphine having failed to produce that permanent benefit which it afforded in the previous attacks, the inhalation of ether was resorted to, on May the 2d, at noon. The patient became

free from pain at 3, P.M., between which hour and 10, P.M., she had five copious, thin, yellow discharges. These were followed by great prostration, and she died at 5 o'clock on the morning of the 3d.

The condition of the stomach during the year 1856, and the repeated illnesses of the present year, had established an accurate system of diet and regimen, so that, quite early, some organic or mechanical intestinal obstruction was suspected.

The absence of continuous pain at the scrobiculus cordis, the want of an icteritious tinge in the conjunctiva and the surface of the body, and the healthy color of the evacuations from the bladder and intestines, precluded the supposition of an obstruction of the gall-ducts.

*Autopsy* by Dr. Ellis.

The *gall-bladder* was much contracted, and firmly adherent to the *duodenum* at a point situated a short distance below the pylorus. In this part of the intestine were two openings, with irregular, ragged margins, one perhaps three lines in diameter, the other sufficiently large to admit the fore-finger, and evidently recent, although the mucous membrane around it was not particularly vascular. By means of the largest of these openings a free communication was established with the gall-bladder, which contained some inspissated biliary matter. Its parietes were much thickened. The *ducts* were pervious, the cystic being even larger than usual.

The *small intestine* was, externally, somewhat reddened. Within it, at a point one foot above the cœcum, was a dark-brown, nodular, and in some parts, granular gall-stone, upward of an inch in diameter, and weighing 104 grains. Though still movable, it seemed to be in close contact with the lining membrane, which was but slightly if at all more vascular than usual. The intestine above the calculus contained a large quantity of thin, yellowish fluid.

The other organs, with the exception of the brain, were examined and found healthy.

May 11th.—*Polypus of the Rectum.* Dr. Ellis showed the specimen, which was taken from a hospital patient, under the care of Dr. Gould, who had died of cardiac disease so short a time after entrance that no thorough examination of the case could be made.

Attached to the posterior wall of the rectum, at a point seven inches from the anus, by a pedicle upward of half an inch in diameter, was a soft, highly vascular, lobulated and villous, cauliflower-like excrescence, about two inches in diameter, rising from half an inch to an inch above the surrounding surface. It apparently involved the mucous coat alone.

Microscopically, it was composed of much elongated, granular, nucleated cells, some of which resembled long columnar epithelium, and were arranged, like the last, in close juxtaposition. Others, though elongated in the same manner, had more irregular outlines, and resembled cells found in a variety of morbid growths.

May 11th.—*Extensive Ulceration of the Colon, attended by comparatively slight Constitutional Symptoms, and terminating in Perforation at several distinct points.* Case reported by Dr. Ellis.

The specimen was taken from a farmer, 27 years of age. Several years before his death he had quite a severe attack of diarrhœa, from

which, however, he entirely recovered. Returning from California in the spring of 1856, he was attacked, in September, with looseness of the bowels, the dejections containing a little blood: but there was no fever and none of the constitutional symptoms which usually accompany acute disease. Indeed, so little was he inconvenienced by the disorder, that he continued to work as usual upon the farm for several weeks. At the end of this time, however, wishing for medical advice, he consulted an Indian physician, but deriving no benefit from his prescriptions, he became the victim of a female spiritualist, who, after "looking into him," prescribed with no better result than her predecessor. Finally, some weeks before his death, he consulted Dr. JAMES JACKSON, who ascertained that the dejections were numerous, and occasionally fæcal, but also very bloody, with more or less pus and mucus. There was much tenesmus, and very severe pain near the anus and in the lower part of the abdomen, the last of a spasmodic character. The appetite was generally good. Forty-eight hours before his death, which took place on May 7th, he was able to rise from his bed, although confined to it during the greater part of the time for many weeks. Though the constitutional symptoms gave evidence of great disease when Dr. J. saw him, there was not the marasmus which might have been expected from so severe an affection of more than seven months' duration.

At the examination there was found in the [illegible] quite a large accumulation [illegible] matter, of which the lower part of the [illegible] seven feet of the [illegible] though [illegible] appeared, the [illegible] elevations [illegible] parts, though [illegible] The [illegible] the anus, ran [illegible] few frag- [illegible] arrange- [illegible] though [illegible] no [illegible] Though [illegible] firm.

[illegible] little [illegible] in- [illegible] for [illegible] re- [illegible] the [illegible] was [illegible] which [illegible] remarks be- [illegible] complained of

considerable pain below a line drawn around the body, through the umbilicus. The bowels were reported as regular, but it was afterward ascertained that, for several years, he had been subject to occasional bloody discharges. Wine of colchicum was administered, and the tincture of aconite applied externally. Under this treatment, the pain diminished until September 3d, ten days after entrance, when the bowels became "irritable," and the colchicum was omitted. On the following day no complaint was made, but, three days after, the looseness returned, and from that time until death, notwithstanding the use of various astringents, &c., he had much tenesmus, and from three to eight dejections daily, often, but not always bloody, and toward the close, liquid, bilious and offensive. Pain was at no time a marked symptom, and was often reported as absent. Neither was there much tenderness on pressure, though it was noticed a number of times in the left iliac region, and, a few days before death, became so marked in the hypogastrium that a blister was applied. Ten days after the commencement of the attack he was able to walk, but the strength afterward failed; the pulse rose from 76 to 140; the tongue became dry; aphthæ formed in the mouth, and he died on Oct. 10th.

At the examination, which was made twenty-four hours after death, there was found some injection of the mucous membrane of the lower part of the *small intestine*, which was in other respects normal. During the removal of the large intestine, the sigmoid flexure was ruptured, although but slight traction was made upon the part; but it was stated by the house officer, who made the examination, that fæcal matter was seen in the *peritoneal cavity*, when it was first opened, and it is probable that perforation had taken place before death. The mucous membrane of one half of the circumference of the *cæcum* was of a vivid red color. A foot below, it had entirely disappeared, being cut off, as it were, transversely by the ulcerative process, the limits of the part remaining being marked by a loose, swollen margin, which could be folded back from the muscular coat below. The latter, perhaps for a foot, appeared as if clearly dissected, a few small islands only of mucous membrane hanging from it in the form of loose shreds. The mucous membrane, in the remainder of the tract, was much swollen, and of a dark-red or slate color. A great part had, however, disappeared, leaving the muscular coat in the same condition as that previously described.

The second case was that of a woman, aged 39, who had not enjoyed good health for seven years previous to her death, having had, as was thought, several slight paralytic shocks.

When first seen by her physician on Sept. 15th, 1853, she complained of piles, obstinate constipation, dyspepsia and debility; was very languid; and, from the peculiar lemon-color of her complexion, malignant disease was suspected. With attention to diet and the use of laxatives, she became much more comfortable, and continued so until Dec. 15th, when she was attacked with diarrhœa, the dejections being generally liquid and bilious, though occasionally containing colorless mucus. At times, some tenesmus. With these symptoms she was confined to her bed until Feb. 13th, when she was seized with great pain in the abdomen, followed by excessive prostration. Though temporarily relieved by the administration of opiates and brandy, she sank and died on the 17th.

The examination was made eight or nine hours after death.

The *peritoneal cavity* contained from two and a half to three pints of offensive purulent fluid, in which many yellow flakes were floating. The *peritoneum* in many parts, particularly in the vicinity of the cœcum and sigmoid flexure, was unusually vascular. The *liver*, *spleen* and other organs were coated with thick pus. The *omentum* was of a dark-red color, particularly along the lower edge, from which the discoloration extended upward nearly to the arch of the colon. The *small intestine* contained a lumbricus and a considerable quantity of thin yellow matter. The upper part was much distended, while the lower two feet were much contracted. The *large intestine* was inflamed externally, particularly in the vicinity of the cœcum and sigmoid flexure. It contained quite firm, moulded, dark slate-colored fæces, none of which were noticed in the peritoneal cavity. The mucous membrane throughout, with the exception of the lower nine inches, was most extensively ulcerated. The ulcers, which in the cœcum were not more than two lines in diameter, gradually increased in size, until a point was reached about twenty inches above the anus, where the mucous membrane had nearly disappeared from a surface perhaps a foot in length, one or two isolated bands or islands alone remaining. The margins of those portions which had escaped were undermined, but there was no unusual vascularity and no discoloration, except a very slight slate color at one part, where the disease was most extensive. At most points the ulceration had extended no deeper than the muscular coat; but, in the centre of a large ulcer measuring nearly two inches across, and about two feet from the cœcum, was an opening two or three lines in diameter, communicating freely with the peritoneal cavity. Still lower down, at the point where the most extensive ulceration had taken place, were three or four other openings, the largest of them six lines in diameter. None of these perforations were sharply cut, and no better idea of their character can be given than by stating that they appeared to be the result of softening and dissolution of the tissues rather than of a gradual ulcerative process.

The *liver* was of the usual size, of a light-yellow color, fatty, very flaccid and easily torn. The *gall-bladder* was of small size, and contained a little dark bile.

Nothing was found in the other organs worthy of notice.

Owing to the deficiency of details in these cases, no accurate analysis of them can be made; and it is not for this purpose that they are reported. They are brought forward as illustrations of extensive structural disease, attended by comparatively slight constitutional symptoms, and terminating, in two instances, in perforation at several distinct points.

In the first case, the patient for some time labored, as usual, upon the farm, and, 48 hours before his death, was able to leave his bed. In the second, the absence of severe symptoms is still more striking. In the third, the patient was reported as walking about ten days after the commencement of the attack; the pulse was not at first quickened; and though the discharges were often bloody, pain was generally absent or very slight, until a short time before death. In the fourth, the record is, unfortunately, very brief; but the dejections are described as liquid and bilious, with occasionally some mucus, characters which certainly would not lead us to infer that extensive destruction of the mucous membrane was going on.

The second point to which attention has been called, was the termination in perforation; not at one, but at several points. In ordinary cases, where this accident occurs, the tissues forming the base of a single ulcer are gradually destroyed until the peritoneal cavity is reached. But we can hardly suppose, that, by the usual ulcerative process, a number of distinct points, at some distance from each other, should be so uniformly acted on, that perforation should take place in them all at the same moment. Moreover, it was not the number alone, but the character of the openings, that was peculiar; they appeared to be the result of the action of some agent possessed of a solvent power.

We seem justified, therefore, in assuming that there is a form of intestinal disease, which, without violent or very strongly-marked symptoms, is attended by the most extensive destruction of the mucous membrane, and may terminate by perforation at several distinct points.

If such cases have been previously noticed, the description of them is not such as to render sufficiently prominent the important points here insisted upon.

May 11th.—*Hermaphroditism.*

Dr. J. Mason Warren said, that by the politeness of Dr. Morris, surgeon and physician to the State Prison, Charlestown, he had had an opportunity of seeing a remarkable instance of the apparent mixture of the two sexes, of which the following is a description. Dr. W. also showed an excellent drawing of the individual, made by Dr. Sargent, who accompanied him. In this case the male organs seemed to be implanted on the female body.

The subject of this very uncommon deviation from nature, was 25 years of age, born in Maine, of healthy parents. He was by occupation a sailor; and the appearances to be described, were only discovered on his being brought to the Prison, when, on being undressed, to put on the prison clothes, he was thought, from the large size of the breasts, to be a female in disguise, and was therefore transferred to the surgeon for examination. On the visit of Dr. W. to his cell, he seemed to have no objection to having an examination made, when it was explained to him that it was for a scientific object.

Beginning with the face, the features are soft, and the expression mild; there is no beard. The neck is of medium size and length, but rising toward the back, as in the female. The shoulders are sloping, round and smooth, the muscles not being prominent. The upper extremities are delicate, and the hands small. The breasts, which are the most striking feature in this person, are large, well developed even for a female, quite handsomely formed, with large blue veins running over them, as in a nursing woman; the nipples being large, with a large, dark areola. The abdomen is quite prominent; the navel deep; the hips very broad, as in the female. There is a small penis. The scrotum and testicles are very small, the size of the latter being that of a bean. The legs are short, the middle of the body being by measurement half way between the umbilicus and pelvis, instead of being, as in the male, at the pubic region. The voice is masculine; the sexual propensities normal.

The interesting and remarkable feature of this case is the fact of the small male organs of generation implanted on a body almost entirely

female. Cases constantly present themselves to the observation of medical men, of malformed genital organs, having the appearance of a combination of the male and female. Also of men with a large mammary organ. In this case there can be said to be no malformation.

MAY 11th.—*Calcareous Concretions from the Scrotum.* Dr. ELLIS showed a number of round or oval bodies, from two to six lines in diameter, taken from the sub-cutaneous cellular tissue of the scrotum. These, at the time of their removal, closely resembled firm, white pith, but, after drying, became hard, as if mostly composed of calcareous matter.

On analysis by Dr. BACON, they were found to consist of "phosphate and carbonate of lime, with considerable organic matter."

MAY 11th.—*Pistol Balls suspended within the Chest by the Pleura; also the appearances in the Lungs eight years after a Gun-shot Wound.*

Dr. J. M. WARREN showed two bullets given him by Dr. Morris, taken from the body of a convict who died lately at the State Prison, Charlestown.

The history of the case was this. In a fit of jealousy, this man shot his mistress, coming behind her while she was sitting on a low bench, and firing down upon the chest. He then placed a pistol to his heart and pulled the trigger. In the act of discharging the pistol, the muzzle became a little elevated, so that the bullets just escaped the heart and great vessels on their passage through the chest. Both of these patients came under the care of Dr. Warren at the time, eight years since. The woman lived three days, and then died in great agony. On a *post-mortem* examination, it was found that one of the bullets had passed through the cavity of the chest and lodged in the body of a dorsal vertebra. This vertebra was now shown, with the ball deeply imbedded in it. A second bullet struck the first rib, was cut in half by it, one half remaining on the top of the rib, the other traversing the lung, being found loose in the cavity of the chest. The hæmorrhage produced by this wound filled the chest, compressed the lung, and was the immediate cause of her death. The third bullet entered the neck, and its course could not be traced.

The man, immediately on being wounded, had great emphysema of the walls of the chest, followed by entire flatness on percussion of that side. After a very severe illness, he recovered sufficiently to be brought to trial, and, being convicted, was sentenced to the State Prison for life.

Dr. W. saw him at the prison about four years since. He then had a constant, dry cough. On auscultation, the respiration was found rough on the left side, and somewhat bronchial. There was no rale. Percussion revealed nothing abnormal. His health was otherwise good.

He died suddenly, a few weeks since, falling down as if in a fit, and surviving only a few minutes. On examination, it was supposed by Dr. Morris that some disease of the heart would be found to explain his death. No sufficient disease, however, could be detected. The valves of the heart were thickened, but not enough to impede their action. In the upper lobe of the left lung a cicatrix, showing the course of the balls, was distinctly visible. The balls having traversed

the lungs, had lodged in the side of the chest. From this place they had become gradually detached, and were found hanging from the sides of the chest like cherries hanging from a tree, having carried the pleura before them, and being enveloped by that membrane.

MAY 11th.—*Miscarriage: Unusual Length of the Umbilical Cord.* Dr. COALE showed the specimen, a fœtus seven months old. The mother had a miscarriage in August last, after a violent illness. There was at the time profuse hæmorrhage. She again became pregnant, and three months ago considered herself as four months advanced. Having made some unusual exertion, she now had the premonitory symptoms of labor, and on examination the os uteri was found dilated, and she was soon after delivered. The cord was tough, and about three feet in length, being twisted three and a half times around the neck of the child, and causing a degree of constriction which, if continued sufficiently long, must inevitably have severed the part.

MAY 25th.—*Foreign Body from the Urethra.* Dr. TOWNSEND showed a piece of sheet lead, of the shape and size of the accompanying cut, taken from the urethra of a man who had introduced it four months before, for the purpose, as was stated, of curing himself of masturbation. Its outer end was about one inch from the end of the penis, within the urethra. As the barbs were directed outward, an operation was found necessary to remove it, a small opening being made into the urethra near the scrotum, through which the lead was drawn.

MAY 25th.—*Tumor of the Face and Orbit; apparently malignant.* Dr. WARREN showed a drawing, and described the case; the patient having been operated upon a week before at the Hospital. The man was 40 years old. Fifteen years since, a small pimple, followed by a scale, appeared on his face, below the eyelid. This was kept sore and irritated, by being constantly picked. It slowly increased, invading the integuments of the face, cellular membranes, muscles, and apparently the malar bone, and taking partial possession of the orbit, so as to force the eye backward and upward, and in a great measure conceal it. The tumor appeared perfectly fixed, as if involving the malar bone and the bones of the orbit; and the operation was done after stating to the patient the uncertainty of the result, of which he seemed fully aware, and with the expectation of the necessity of removing the malar bone and the orbitar process of the superior maxillary.

The tumor on the face being circumscribed by an incision, and the dissection commenced, it was found possible, while using the chisel to examine the state of the bone, to peel up the tumor with it from the base without removing any of the bone itself. The disease evidently had taken hold of the covering of the bone, but had not penetrated its structure. With much difficulty and patient dissection, the whole periosteum of the malar bone, with the tumor attached, was removed, and the dissection carried deeply into the orbit, removing the disease there in the same way, the whole mass coming out perfectly clean

[illegible] membrane were [illegible] been much com- [illegible] afterward, by Dr. Ellis, [illegible] but no cancer- [illegible] well after the [illegible]

*M[illegible] Child with double Hare-lip.* Dr. [illegible] The child, which was otherwise well formed, [illegible] at the time of birth, lived four months, and then [illegible] deficient nourishment, consequent upon the difficulty of taking food. The bone was quite projecting, and contained the four upper incisor teeth, resembling that of the lower animals.

May 25th. *Bronzed Skin; Disease of the Supra-renal Capsules.* Dr. Gould reported the following case of Addison's disease, which recently came under his observation at the Massachusetts General Hospital; it being, as he remarked, the first within his knowledge which had been recognized in this vicinity. In view of the importance of every additional case, in making out the history of this extraordinary affection, Dr. G. gave the particulars of it, so far as he had been able to obtain them.

G. R. W., farmer, aged 41, came as passenger in an Eastern steamboat on his way to the West, for his health, May 22d, 1857. He had been very sea sick during the preceding day and night, but had walked about the cabin in the morning. A little time afterward, he was found lying insensible in his berth, in which condition he was brought to the Hospital in the afternoon. His appearance was that of a stout, vigorous man. He lay on his back, quite helpless and insensible; breathing at irregular intervals; hiccoughing; unable to swallow; frothy saliva running from his mouth; the eyelids firmly closed, and the pupils contracted; action of the heart very rapid and feeble; pulse very weak, uncertain, and sometimes imperceptible; hands very cold, and fingers rigidly flexed.

The skin had a peculiar dusky hue, so that one person supposed that he might have had a mixture of Negro and Indian blood; while another suggested his resemblance to an unwashed collier or stoker. Within the mouth, behind the lips, was a circle of dark spots, not [illegible] The cheeks were especially dark and [illegible] would aptly designate their [illegible] that the peculiar hue [illegible] feet and under the cloth- [illegible]

[illegible] prostration, no depletion [illegible] except by inha- [illegible]

[illegible] but subsequent to [illegible] from the relative [illegible] with his physician. In- [illegible] the result of the autop- [illegible] preconceived opinion.

He had been a man of great energy, strength and endurance; rigidly temperate; a farmer in summer and a lumber-man in winter; had six children, the eldest of whom, seventeen years old, weighs 180 lbs. Eight years ago he had pneumonia, leaving him with cough and copious expectoration, which kept him from work about three years, at the end of which time he had a series of boils in the epigastric region, and also a large abscess in the thyroid region, which for two weeks filled and discharged every forty-eight hours. He then recovered and resumed labor, and for the next four years was in excellent health. About a year since, he began to fail again; had loss of appetite, flesh and strength, with frequent attacks of nausea and vomiting; he had pain in the abdomen on stooping, with an irregular state of the bowels; he often had coldness, rigidity and insensibility in the fingers of both hands, lasting perhaps an hour. Dizziness came on; his memory failed, and he became listless. He could walk but a short distance, although he was able to drive about in a carriage. Nothing unusual in the urinary function was noticed. He gave up work early in March. About eight months ago, a change was first noticed in his complexion, described as of a bluish cast, at times almost purple. Discoloration within the mouth was observed some weeks since. Some persons ascribed his disease to the liver, others to the lungs; but the physicians in whom he had most confidence, suspected the heart.

*Sectio Cadaveris*, by Dr. C. Ellis. In the substance of the brain, between the lateral ventricle and longitudinal fissure, was a firm, bluish-white nodule containing considerable cretaceous matter. On microscopic examination it was found to consist of fibroid tissue. The pleural surfaces of both sides were every where united by old, white, delicate fibrous tissue. The lungs crepitated throughout; in many parts were dark-red spots like ecchymoses. The heart was rather flaccid, containing a large quantity of fluid blood, but no coagula, and there was no coagulation after its removal from the body. The liver was firmly adherent to the diaphragm; its substance normal, and dark red throughout. The spleen adhered to the diaphragm, and was rather soft. The supra-renal capsules were surrounded by fat, which was separated with difficulty from their external surface. That of the left side was much thicker than usual, very firm, and of a bluish-white color, though much of it was occupied by soft, yellow deposits resembling tubercular matter, or concrete pus. The deposit consisted of minute globules or granular corpuscles, varying in size from those of tubercle to those of pus. The firm, bluish-white substance consisted of fibrous tissue. The right capsule was smaller than usual, though thicker at one part, and nowhere flat, as in the normal state. Its appearance, on section, was the same as in the other capsule, but the disease was much less extensive. The other organs were normal.

Of the symptoms mentioned by Addison, as characteristic of the disease, we have above, from independent and unprejudiced sources, nearly every one. We have bronzed skin, debility with moderate emaciation, anemia, dyspepsia, feeble pulse, nervous twitchings, with numbness and failure of memory. The other symptoms mentioned by him relate to the tongue, lumbar pain, the urine (which so far as known was normal), change of temper, and a peculiar odor. With regard to these, the reporters are silent, but not contradictory.

MAY 25th.—*Stone in the Bladder.* Dr. J. M. WARREN, to a question proposed, whether cases of stone had not recently been more frequent than in former years, said, that the cases operated on in Boston had averaged about three in two years, until within five or six years past, when they had been more common, and he had seen and operated on three during the last two months. Other gentlemen had also had cases. His friend Dr. Slade lately had a case; and also Dr. Cabot. Dr. Hodges had, within a few weeks, reported a successful operation for stone; and Dr. Page had seen a patient with it. Dr. W. had also loaned lithotrity instruments to two medical gentlemen in neighboring towns, who expected to operate with them.

Of the three cases of his own, which he had referred to, one was in a child, the other two, in adults. The first calculus was oxalate of lime; the other two were triple phosphate.

The case of the child was an interesting one. The symptoms had declared themselves a year and a half since, the child being three years old, and the sufferings intense, preventing sleep, and producing all the usual symptoms of stone in the most aggravated form. The patient had been twice sounded, while under the influence of ether, by experienced surgeons, but no stone was detected. Dr. W., after etherizing him, introduced a common sound, but, with the most careful examination, assisted by the finger introduced into the rectum, failed to find any calculus. The instrument was therefore withdrawn, and a sound with a slight curve at its end, somewhat similar to the one described by Mercier for exploring the prostate gland, was used. This, being passed in, and, taking up less room than the common sound, at once struck a stone, which lay very high up in the bladder.

It was at first proposed to destroy the stone in this case by the crushing process; but it was soon found that the bladder was too much contracted to admit of it, not being able to contain sufficient water to allow the instrument to be manœuvred safely. This was therefore abandoned; the child was cut by the bi-lateral operation, and a large stone removed. The coats of the bladder were much thickened, and its cavity greatly elongated, so that quite a long pair of forceps was required to reach and dislodge the stone. The patient slept soundly the night after the operation, being the first good night's sleep he had enjoyed for more than a year. At the end of a week the urine passed by the urethra, and in another week the child went home well.

The other two patients were lithotrized, and have done well.

JUNE 8th.—*Cancer of the Stomach terminating in Perforation.* Dr. ELLIS showed the specimen and reported the case.

The patient, a German 50 years of age, had been under the care of Dr. Cleveland. For three or four years previous to his death he had been troubled by "indigestion," pain in the epigastrium, and obstinate constipation. During the greater part of this time he was able to perform his duties in an iron foundry; but, four or five months before the termination of the case, he was obliged to give up work, on account of a "distressed feeling" in the epigastrium. There was occasionally here some sharp, lancinating pain, but "distress" was the term generally used to express the sensation. Never any nausea or vomiting, unless excited by purgative medicine. No tenderness.

The rigidity of the abdominal muscles was very great. About ten days before his death the abdomen enlarged, and he became generally anasarcous. No symptoms were at any time noticed which indicated perforation and peritonitis.

*Sectio Cadaveris.*—At the examination, the abdominal parietes were extremely tense. On puncturing them, air escaped with great rapidity. The peritoneal cavity contained three or four gallons of serum, pus and lymph, the surface being, in many parts, smeared with the latter. The intestines were reddened, and loosely glued together, the products of inflammation being evidently quite recent.

At the upper part of the anterior wall, near the pylorus, was a round opening three or four lines in diameter, with a smooth and very thin margin. Through this the dark-brown contents of the stomach were seen to issue. No trace of adhesions to the neighboring parts. In the last two inches of the pyloric portion of the stomach was a yellowish-white encephaloid deposit, with which the walls were more or less extensively infiltrated, the disease extending for a short distance into the duodenum. The maximum thickness of the part affected was from three to four lines. Just within the pylorus was an ulcer an inch and a half in diameter, with a dark slate-colored base, in which the opening previously described was seen. The parietes for a short distance around it were extremely thin. The mucous membrane of the stomach elsewhere was sufficiently healthy.

The lungs, lumbar glands and liver also contained encephaloid growths, the deposit in the last two being very large. A small amount of the same was found in the vena cava, and one of the large trunks opening into it.

The case was thought interesting on account of its termination, and as an instance of cancerous disease of the pyloric portion of the stomach, without nausea or vomiting.

June 8th.—*Kick of a Horse; Rupture of the Small Intestine; Death.* The specimen was shown by Dr. Ellis, and the case reported by Dr. Cabot.

The patient, P. M., was an Irish laborer, aged 19. On the morning of the 20th of May, while at work in a stable, and incautiously stooping down behind a vicious horse, the animal gave him a violent kick in the abdomen. Faintness immediately followed, but he soon recovered sufficiently to be conveyed to the Hospital. On his entrance, he complained of intense pain in the region of the umbilicus, keeping both hands pressed upon the spot. He had a strong desire to pass water, but was unable to do so. He stated that he micturated only five minutes before the accident. The catheter was passed by the house surgeon, and about half a pint of urine, slightly tinged with blood, was drawn off. No mark of injury was discovered on the abdomen. The skin was warm. Pulse 76, feeble. Vomiting incessant. Half a grain of calomel was ordered every half hour till the vomiting should cease; also, sixty drops of laudanum in hot brandy and water, a mustard poultice over the whole abdomen, and an enema of warm water.

At 5, P.M., he seemed much relieved, there being less pain in the abdomen, and the urine passing more freely. The vomiting also had ceased. He however passed a restless night, and on the following

morning the hands and feet were quite cold, the pulse imperceptible, the skin covered with dusky patches, and the lips bloodless. He complained of inability to pass water. A catheter was introduced, but no water came through it; and on withdrawing it, clots of blood adhered to its extremity. Hot water was now ordered to the feet and axillæ, a sinapism to the epigastrium, and 60 drops of laudanum in hot brandy and water as often as pain should be felt. Shortly after, the patient got up and walked to the water-closet, but was brought back at once. He had vomited a bilious fluid at intervals during the morning. At 11 o'clock he became insensible, and in half an hour more he died.

*Sectio Cadaveris*, by Dr. Ellis, 22 hours after death. On opening the peritoneal cavity, there was an escape of fœtid gas. The serous membrane was everywhere much reddened and quite extensively coated with recent lymph, by which the loops of the small intestine were slightly glued together. The cavity contained two pints and a half of a greenish liquid, composed of serum, pus, and the greenish contents of the small intestine.

At a point ten feet from the pylorus was a lacerated opening, about half an inch in length, the margin of which was formed by the everted mucous membrane. The portion of intestine involved lay, at the time of the examination, just within the pelvis.

Beneath various parts of the pericardium were small ecchymoses; some staining of the lining membrane of the aorta. The other organs were all examined and found healthy.

June 8th.—*Inguinal Hernia—Strangulation at the Internal Ring—Death in ten days.* Dr. H. G. Clark reported the case. G. M., a native of Canada, a strongly built man of 65 years, on the 18th of May last went from his house to the office of a physician, a distance of half a mile, or more, to consult him in regard to what he believed to be rheumatism. On the evening of the next day he became worse, and then found that an old inguinal hernia of the left side had escaped from his truss, and could not be replaced. It remained unreduced, without any violent symptoms, until the third or fourth day after, and then disappeared. He remained in a state of great uneasiness, with occasional retching, having one or two slight and unsatisfactory dejections, but with only partial relief of his symptoms. He took, as was understood, at various times, moderate doses of mercurials, combined with opium; also certain gentle laxatives. Fomentations and enemata were employed. He gradually grew worse, until the evening of the 26th, when he was first seen by the reporter. His condition was then as follows: The skin was shrivelled, cool and moist, and, upon the extremities, purple—the countenance was somewhat flushed and anxious—the tongue was cool, and thinly coated with a dirty-yellow fur—the pulse from 120 to 130, and quite small—the abdomen tympanitic—urine scanty. At long intervals the patient vomited, with but little effort, a thin, stercoraceous fluid. There was no dejection, except as above mentioned, from the commencement of the attack. Stimulants were administered freely, and external warmth and friction seemed to rally him temporarily; so that, on the morning of the 27th, he was decidedly improved. His skin was warm, and he had had some sleep. Efforts were made, by introducing

O'Beirne's tube its whole length into the intestine, and by passing through it large quantities of warm water, to penetrate the obstruction, which it was evident existed; but without avail. He sank, without pain, at 2 o'clock, P.M., of the 28th.

The autopsy was made by Dr. Ellis the same evening, and the small intestine was discovered just caught within the inner ring, from which it seemed to have *almost* escaped. It was found, however, to be firmly adherent, and perfectly strangulated. The whole canal, below the point of strangulation, was entirely empty, and contracted to the size shown in the drawing, while that above was, as is also shown, very much enlarged and discolored.

The case is remarkable in two respects: First, from the fact that the hernia, after being *apparently reduced* should have remained *really strangulated*; and next, that the disease should have gone on to its necessarily fatal termination so very slowly and with so small an amount of active suffering.

Dr. Clark remarked that he should not omit to state, as an example of the difficulty of verifying on a living patient a state of affairs which may reasonably be supposed to exist, that the patient was seen on the 22d or 23d, by Dr. Hodges, and by Dr. H. J. Bigelow on the 26th; and neither these gentlemen nor himself were at any time able to detect the slightest remaining trace of the hernia.

June 22d.—*Calculus composed of Cystine.* Dr. Warren had lately met with a specimen of that very rare calculus, *cystine*, in an almost pure state. Some *years since, he had* exhibited to the Society this sort

of calculus, mixed with the phosphate of lime, and which had been removed from a patient by operation. Dr. Bacon analyzed the stone, in the present instance, and also the urine.

The patient had been confined, upon his back, with a fractured thigh, when he was seized with violent symptoms referred to the region of the kidneys, and these were succeeded, a few days subsequently, by the expulsion of the present small stone. He had previously passed a quantity of the same concretion, in small bits of the size of the head of a pin.

Dr. Bacon stated that the patient, while in the hospital, had passed, *per urethram*, a calculus weighing three quarters of a grain, and several smaller ones, all composed of pure *cystine*. The urine also contained a deposit of cystine in large microscopic crystals.

June 22d.—*Perforation of the Gall-Bladder, and Escape of its Contents into the Peritoneal Cavity.* Dr. Ellis showed the specimen, which was from a patient of Dr. Hooker, of East Cambridge, who reported the case.

Dr. H. was called, on the 16th of April, to see a girl 9 years of age. She had not been well for three days previous, during which time she vomited and complained of pain in the bowels. At the time of the first visit she had headache, sickness at the stomach, irritable bowels, great heat of the skin; was restless and watchful. There was no delirium; the tongue was coated brown, moist; pulse 90. These symptoms continued nearly the same for the first three weeks, with occasional intermissions and exacerbations; the pulse ranging from 90 to 100. The bowels were painful, tender on pressure, with inclination to diarrhœa, and moderately tympanitic. No rose spots were discovered. The tongue, a part of the time, was parched and dry, generally moist at the edges. There was sickness at the stomach and vomiting every day, from the commencement till nearly the close of the disease. About the fourteenth day, the patient complained of great soreness and pain in the rectum, and the use of enemata was excessively painful. Aside from the pain in the rectum and head, the pain was principally in the right side, from the epigastric region downward. She had occasional attacks of severe pain in the right leg and ankle after the first ten days. No swelling or inflammation was perceptible in the limbs. The principal seat of pain was in the region of the liver and just below. Vomiting was excessively painful. Large quantities of yellow and green watery matters were thrown many times a day from the stomach, after the first two weeks of the disease.

At the close of the third week a swelling was discovered a little above and to the right of the umbilicus. It was excessively tender on pressure, and a thorough examination of it could not be obtained. It seemed at first hard and circumscribed, but before death there was distinct fluctuation in the tumor, and it had extended upward toward the liver. For the last four weeks little if anything was retained on the stomach, except iced water and an aqueous solution of morphine. During that time also the skin became very dark, having a livid appearance. Death occurred during the seventh week of her disease.

An older brother was taken sick in the second week of her illness, *with typhoid fever*, and did well.

*Sectio Cadaveris*, by Dr. Ellis. At the time of the examination, the right side of the abdomen was flat on percussion, from one point situated somewhat to the left of the ensiform cartilage, to another three inches below the umbilicus. From the latter, the line separating the flat and resonant portions ran obliquely upward to about the extremity of the eleventh rib.

In the peritoneal cavity below, limited by adhesions, was a large collection of yellowish fluid, apparently a mixture of bile and pus, amounting, by estimate, to three or four pints. This lay above the liver and great omentum, and could not have been of long standing, as the adhesions were separated with ease, and the yellow lymph coating the various parts was soft and recent. The right lung and diaphragm had been pushed up by the fluid in the abdomen. The gall-bladder was adherent to the duodenum and ascending colon. Between it and the latter was an opening three lines in diameter, through which the contents of the intestine were seen to escape after the separation of the parts, which could not have been long united. In another part of the bladder, about midway between the fundus and duct, were two large free openings, with thin margins. The surrounding portions of the parietes were of a dark-green color, and presented no well-marked appearances of inflammation or ulceration. The ducts were all pervious.

The peritoneum was everywhere much reddened, but none of the usual products of peritonitis were found, except in the part above described. The lower part of the small intestine was quite red, but no disease of Peyer's patches existed.

The other organs, with the exception of the brain, were examined and found healthy.

June 22d.—*Death from Rupture of the soft parts at the entrance of the Vagina. Cysts in the Vagina.*—Dr. Ellis reported the case.

A healthy woman, in the seventh month of pregnancy, was found lying upon the floor, in a pool of blood, immediately after falling from a bed, upon which she had been standing. Dr. Z. B. Adams was at once called. He found her bleeding profusely from the vagina, and in a state of collapse. The efforts made to arrest the hæmorrhage were of no avail, and she died in about three quarters of an hour after the accident.

At the examination, there was found on the left nympha a recent rupture an inch and a half or two inches in length, with rough edges, and evidently made before death. The tissues, to a limited extent, in the neighborhood, were discolored by extravasated blood. The vagina, near the meatus, also appeared to have been extensively lacerated, but it was thought that the parts might have been cut during their removal. Beneath the mucous membrane of the vagina were two cysts, from half an inch to an inch in diameter, filled with serum. One of these lay just below the os uteri, the other near the vulva. The uterus and its contents were found perfectly healthy. The os was plugged with thick gelatinous mucus.

The case was considered interesting as an instance of what has been before noticed—fatal hæmorrhage from laceration of the vulva. It could not be ascertained that the woman had struck anything in falling from the bed to the floor, but it was thought, after the examina-

tion, that the post of a crib, from the position of the latter, might have been the cause of the accident.

Cysts in the vagina, like those described, have been seen, but are very rare.

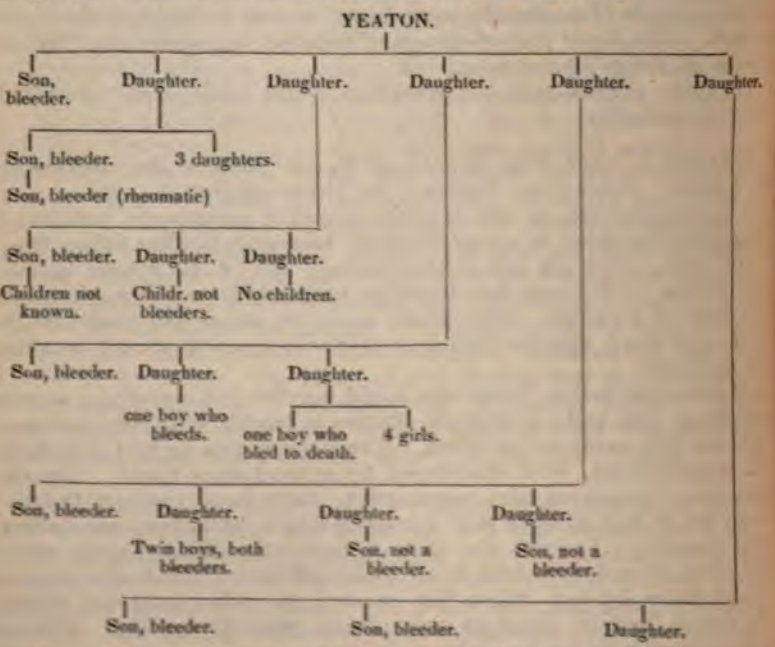
Dr. STRONG alluded to the peculiar vascular condition of these parts during pregnancy, as probably accounting for the profuseness of the hæmorrhage in this case, and the consequent death of the patient.

Dr. JACKSON remarked that he had always found the parts about the vagina much more vascular in the gravid state.

Dr. H. J. BIGELOW mentioned in this connection a case of what proved to be a melanotic tumor of the clitoris, in which, after its removal, the hæmorrhage was so profuse that compression with the hand was necessary to allow time for etherization preparatory to more efficient means. The tumor was about the size of a marble.

Dr. PUTNAM mentioned a case of violent hæmorrhage in a woman during pregnancy, following a wound produced by a broken chamber vessel.

JUNE 22d.—*Family of Bleeders.* Dr. GOULD exhibited the following table, showing that all the male descendants of a family of bleeders, for two generations, and many in the third—nearly all, as far as known—had this constitutional peculiarity. Nearly all were more or less subject to rheumatism. No female had had hæmorrhage.




JUNE 22d.—*Lichen Annulatus Solitarius.* Dr. BORLAND reported the case.

The patient, a girl, 7 years old, presented herself at the Dispensary, for treatment for the present trouble, which was of about ten days'

standing. Her general health was fair, and she had no hereditary tendency to disease.

The accompanying cut represents, in size and general appearance, the only patch of disease of the skin which she had. The upper edge of the outer ring was over the sternal end of the right clavicle, and the whole patch presented most of the characteristics which belong to lichen annulatus solitarius, as designated by Wilson.

The outer ring had evidently spread from a spot, or central point, where it had commenced, and it was formed of small brownish-red papules upon slightly inflamed bases. They were somewhat pointed, and very uniform in size. The area of the ring was yellowish, and thinly covered with a fine mealy scurf. As sometimes happens in this affection, other spots had appeared within the ring, and had spread in their turn into rings of papules of a similar character, so that they represented, in a striking manner, the pattern of the figures 3 and 8.

She was ordered a course of iodide of potassium, with a local application of lead wash, and it is presumed, from the patient's not re-appearing, and the generally short duration of the disease, that it soon disappeared.

July 27th.—*Disease of the Male Breast.* Dr. W. T., of N. B., in this State, being in town to attend an extra session of the Massachusetts Legislature, of which he is a member, was present at the meeting of the Society, and reported the following history of the case, which occurred in his own person. His age is 38, and his health has not been quite good since an attack of scarlet fever four years ago. Last September he first felt, and without known cause, an itching, burning and stinging sensation in the extremity of one of the nipples. It awoke him sometimes in the night, and was present during about one fourth part of the time for the first two months, but seemed to increase. Early in the disease he once scratched off a scab from the end of the nipple, and which he knew nothing of before, though it was more than three lines in diameter; this never formed again. Except for this scab, the nipple always looked healthy; nor was there ever any discharge from it. In the base of the nipple, and for about two inches around it, a lancinating pain was also felt from the first, generally every day; and it increased from the first. In the course of the first month a tumor was felt, half an inch in diameter.

Dr. T., feeling much anxiety in regard to the nature of the disease, consulted several surgeons in this city during the month of February; but no one thought it cancerous, which was what Dr. T. particularly feared. At that time the tumor was ill-defined, fleshy rather than firm to the feel, quite visible, though small and somewhat tender; this last being, perhaps, owing to the applications that had been made and to the frequent handling of it. Iodine had been used, in various forms, but it always *increased the* pain. A plaster of ammoniacum c.

hydrargyro was recommended and worn for a week, and in the course of this time the tumor doubled in size. The nipple, as well as the skin, was quite healthy in appearance at this time.

On the 24th of February, the tumor was removed in the country; the operation having been advised by some of Dr. T.'s friends, and he being desirous to have his mind at rest. A very large portion of skin was removed, the incision being seven inches in length. An hour after the operation, very copious hæmorrhage occurred, with syncope. Since that time, the extensive wound left by the operation has been very slowly cicatrizing, and it has not yet entirely healed; some of the neighboring small vessels became dilated and tortuous, giving the lower portion of the wound a somewhat malignant aspect, although there has been no appearance of a return of the disease.

The specimen was shown by Dr. Jackson, who received it immediately after its removal, and gave the following account of it, as it appeared at that time. The tumor was in the situation of the gland, quite defined, and of a flattened and somewhat elliptical form; surfaces slightly convex; the diameter being 1¾ by 2½ in., the edges thin, and the thickness in the centre about half an inch. It was closely connected with the nipple, but not at all with the integument; which last, as well as the skin, was quite healthy. It had a fleshy consistence, was not at all vascular, and presented, throughout, a uniform structure. It seemed to consist of a whitish and not very compact fibrous cellular tissue; the surface being roughened by numerous, minute, uniform, transparent and apparently firm granulations, which, on incision of the mass, seemed to be confined mostly, if not entirely, to within about a line and half of the external surface. Dr. C. Ellis, who examined the specimen microscopically, found it to consist mainly of fibrous tissue; there being no appearance of carcinoma. Since that time, it has been kept in spirit, but the appearances are well preserved.

July 27th.—*Reducible Hernia strangulated by twisting in the Sac.*—Dr. Cabot related the following case.

A week ago he was called to see a man aged 70, who had had a reducible inguinal hernia, for which he had worn a truss. About 3 o'clock in the morning, having got out of bed for some purpose, on returning he found the hernia down, but fell asleep without reducing it. On again awaking, he found the tumor quite large, and that he was unable to put it back. There was pain in the abdomen. Dr. Cabot saw him at half past 1, P. M. He was now almost pulseless; there was oppressed breathing; and the tumor, which was about the size of the head of a fœtus at full term, was blue and cold; it was also œdematous, and there was absence of gurgling. Above the tumor was a band, quite tense. Dr. C. proceeded to operate at once, and having freed the tumor from all apparent constriction, still found its reduction impossible. He then opened the upper part of the sac, but with no better success. On careful examination he observed what appeared to be a portion of intestine stretched across, and apparently adherent at the lower part of the sac; whereupon he slit the whole sac open from top to bottom, and found that the whole mass, consisting of a large amount of intestine, was twisted entirely round upon itself, the mesentery forming the band spoken of above and at first supposed

to be the intestine, and producing complete strangulation, the portion below being of a deep morone color, almost black. The patient died before the next morning.

Dr. C. did not remember to have heard of a similar case.

Aug. 10th.—*Nitrate of Silver in Asthma.*—Dr. Bowditch said that he had found the application of a solution of nitrate of silver to the larynx, as suggested by Dr. Horace Green of New York, of great efficacy in this distressing complaint, and alluded to three cases in which he had employed this remedy.

The first was that of a young man, in whom it was tried three years since, the application being followed by marked improvement. The patient had suffered but little since, until last year, when having taken cold, he again had the premonitory symptoms, as he supposed, of a severe attack, and applied for advice. Dr. B. again used the nitrate of silver, applying it to the top of the larynx, the solution reaching, as Dr. B. supposed, from the change in the character of the voice, the vocal chords. The patient experienced almost immediate relief after the first application, and no attack followed.

The second case was one in which the application was continued for a considerable time, and was followed by entire relief.

The third was that of a gentleman who had never had but three attacks of this affection, these having occurred within five years, and the first two of which had been treated elsewhere. Dr. B. saw him within a few weeks; he had been suffering severely, having been obliged to sit up every night. Three applications of the above solution were made, at intervals of one or two days, after which there was no return of the paroxysms. The first application, however, gave decided relief. Dr. B. was inclined to the opinion that this affection, which is so often considered as connected with the lungs, is, at least in the earliest stages, an affection of the larynx alone; there being a congested state of this part which is relieved by the application of the nitrate of silver. Relief, however, is obtained even when rales in the chest indicate a bronchial trouble.

Dr. Bowditch also mentioned an important practical point in connection with the operation of applying the nitrate of silver, stating that he had found that, if applied immediately after a full inspiration, and just at the commencement of expiration, the latter being performed slowly, little or no inconvenience need be apprehended.

At the subsequent meeting of the Society, Dr. Jackson stated that he had tried the treatment, so successful in the hands of Dr. Bowditch, with marked benefit. The patient was a man about 40 years old, who since last winter had been a constant sufferer from asthma. The solution, of the strength of that employed by Dr. Bowditch, was applied to the larynx at intervals of one or two days. Three applications only were made, and the patient expressed himself as much relieved, and has since been able to attend to his ordinary occupation. In accordance with Dr. Bowditch's precaution, Dr. Jackson, in applying the solution, took care to seize the moment immediately following inspiration.

Aug. 10th.—*Clustered Tumors of the Lids.*—Dr. Bethune reported the case.

The patient was a single woman, aged 50. Two years ago she had a severe pain in the left side, under the ribs, which lasted five months, and from which she had occasionally suffered since. She had had cough, but it is now much better. She had also passed blood by the bowels. Three years ago she had a tumor one half the size of a hen's egg, at the angle of the left jaw, which lasted one year and then spontaneously disappeared. She also had three small tumors at the edge of the scalp, on the neck, which went off at the end of a few months.

Two and a half years ago, a tumor was observed on the left upper lid; one year after, a similar tumor formed over the centre of the right upper lid; since then, others had formed from time to time, the two last within two months. She had never experienced pain in them, or tenderness on pressure.

*May 19th.*—On examination, the right upper lid was found much distended by the tumors, there being also almost complete ptosis. Enlarged veins ran over the surface of the tumors. The sight of this eye was weak, but tolerably good on raising the lid. Under the loose skin were five tumors, irregularly rounded on the upper surface and apparently convex on the lower, movable, elastic, firm, in a group, apparently connected with each other, and ranging from the size of a lentil to that of a large marble. On partially everting the lid, the conjunctiva was seen in projecting folds, forced down by the pressure of the tumors.

The left upper lid was similarly occupied by four tumors, but their general size was perhaps one-third smaller than those of the right lid. There was also ptosis, but less in degree. The globe was normal. The lower of the tumors could be exposed on the globe of this eye by raising the upper lid with the finger, being flattened and covered by the tarsal conjunctiva which it had forced before it in its growth.

On the following day an operation was performed on the right upper lid. The tumors were removed through one incision an inch and a quarter long, over the upper edge of the cartilage. The largest was firm and easily removed whole, which was also the case with two of the others. Another was so soft that the forceps penetrated it at once in the attempt to remove it, and a thin pus escaped from its interior. Another was composed of two lobes slightly connected. Owing to the deep penetration of one of the tumors, it was necessary in removing it to go through the lid at one point. Several small, indurated masses, apparently of cellular membrane, were also removed. The general external appearance of the tumors was of a fatty character. The wound was brought together by three ligatures. The microscopical appearances of these tumors, as reported by Dr. Shaw, were as follows:

"They were composed of globular bodies, small, very granular, like free nuclei of glandular growth; some presenting nucleoli; no lobulated structure—the microscopic character being much the same as that of the recurrent disease of the orbit reported several times by Drs. Bethune and H. J. Bigelow (*Soc. Rec.*, vol. ii., p. 353), though to the naked eye the appearance was different."

There was some pain in the eye after the operation, which became easier at night. On the next day, May 20th, there was severe pain, and some thirst, but the patient was able to be up and walk about. *On examination* of the eye, the upper lid appeared much swollen, pink,

œdematous. One of the ligatures was removed, and a slight discharge of sanious fluid took place with some relief. Pulse 104; tongue clean. Two grains of calomel with eight of rhubarb were ordered, to be followed by cream of tartar; also a wash of warm slippery-elm tea to the eye. On the 22d, the lid was still much swollen, and there was rather more pain in the eye.

On the 25th, all the stitches had come out. The patient could see through the "button-hole" in the lid. There was anorexia. The granulations were pale. Quinine in doses of two grains, and meat, were ordered; also zinc ointment to the edges of the lids.

On the 26th, milk was allowed. The lids were less swollen; nitrate of silver was applied to the edges of the wound.

*June 3d.*—Wound had nearly healed. Above the inner side of the incision was felt a small, flat, firm, movable tumor.

On the 26th, patient was re-admitted. The tumor above described as having formed since the first operation, was removed from the inside of the right upper lid, after eversion. Also, a tumor was removed from the inside of the left upper lid, of the size of half a chestnut, enclosed in the conjunctiva which it had forced before it. The microscope revealed the same appearances as before. On cutting through the tumor removed from the left upper lid, it presented a firm external casing of the eighth of an inch thick, somewhat resembling cartilage. Within this were two or three lobules, loosely connected, of a similar appearance. There was considerable soreness and swelling after the operation, which had nearly subsided by July 1st.

On the 9th, a small tumor was discovered in the left lower lid. On the 14th, an operation was performed on the left upper lid, three distinct tumors being removed, also six or seven indurated masses which presented the same appearance as the above. On the 27th, the wound was healing well, and the patient was discharged much improved on the 8th of August.

Aug. 10th.—*Thoracentesis in Hydro-pneumo-thorax.*—Dr. Bowditch remarked that he had recently performed this operation in two cases of the above-named disease. In the last, which occurred a week since, the patient had suffered for about six months with signs of phthisis, and for some days with pneumo-thorax. There were all the signs of the presence of this affection—resonance on percussion, orthopnœa, &c., together with displacement of the heart. As it was evident that the patient must sink unless speedily relieved, a small trocar was introduced, the canula being left in, which afforded considerable relief. This unfortunately became displaced, and could not be replaced, and closure of the opening followed. At the operation, air rushed out, together with about a pint of serum. On the following day the patient was considerably easier, the respiration being heard nearly to the point of puncture. Air has since again begun to accumulate, but there has been a decided improvement in the general condition of the patient. The operation was unattended with pain, and there has been no pain since resulting from it. Dr. B. saw no reason why this operation may not be employed in cases of *pneumo-* as well as *hydro-*thorax, at least as affording temporary relief.

The patient lingered about two weeks, recovered his appetite and some strength, and *did not have any* severe dyspnœa until about two

days before death. Then the operation was again performed simply for relief. The dyspnœa was lessened, and the patient was made more comfortable, but he sank and died in about two and a half days. At the autopsy, no mark could be discovered in the membrane covering the pleura costalis, to indicate the point of puncture. The lung was compressed, and contained tubercles in a crude state. No cavities.

Dr. Jackson remarked upon the difference in the prognosis of this disease in this country and in Europe, and alluded to several cases in which he thought essential recovery had taken place in this country; while in Europe the disease is spoken of as almost necessarily fatal. He mentioned a lecture of Dr. Alonzo Clark, in which several favorable cases are alluded to.

August 10th.—*Hair-ball from the Stomach of a Bullock.* Dr. Jackson showed the specimen, a spherical mass about six inches in diameter, received from Dr. Head, of the U. S. Army, who brought it from Texas. Dr. H. states that these are not of very rare occurrence in that State, and are occasionally used by the inhabitants, after being divided, for scrubbing floors. [See Cabinet Specimens numbered 524–5–6.]

Aug. 10th.—*Osteoid Cancer of the Head of the Tibia.*—Dr. Townsend reported the case and showed the specimen, a section of the diseased bone. The patient was a girl eleven years old. In January last, she was kicked just below the knee by a playmate. Four days afterward, the part became swollen and painful, and continued to swell until the time of the operation. The disease was considered of a malignant nature, and the leg was amputated.

The tumor measured about four inches in diameter at its thickest part, and extended downward about six inches. The microscopic appearances of the softer portions closely resembled those found in cancer.

August 24th.—*Typhoid Fever; Death from Hæmorrhage.* Case reported by Dr. Ellis.

On August 8th, a man, 30 years of age, entered the Mass. General Hospital, having been attacked a fortnight before with chills, which continued for three days, with much perspiration at night. He had also had constant and severe pain in the head from the commencement, and for five or six days some deafness, anorexia, and much thirst. Bowels regular. No pain in the abdomen.

When first seen, although drowsy, he appeared perfectly rational when spoken to, and complained of nothing but the pain in the head. The cough, which had been one of the earliest symptoms, was slight, and attended by little expectoration. Though debilitated, he was able to walk; the pulse was but little accelerated; there were no abdominal symptoms, and he improved somewhat until the morning of the 12th, when the nurse noticed that he was unusually pale. Aid was obtained, and efforts made to stimulate him, without success. The prostration continued very great for a short time, when a sudden gush of blood took place from the anus. The bed was soon flooded, and he died immediately.

*Sectio Cadaveris.*—At the examination, the intestines were found contracted. The small intestine contained nothing but a little soft, yellow matter, with which the surface was smeared.

Peyer's patches in the lower four feet of the ileum were somewhat reddened and much thickened. In the largest of these, just above the ileo-cœcal valve, there was considerable ulceration, the ulcers extending certainly to the submucous cellular coat. At the lower end, where the ulceration was deepest, was a yellowish-white slough, perhaps three lines in diameter, with edges blackened as if from contact with blood. Above this point, no blood was seen. Below it, the surface was smeared with a thin layer of blood and small recent coagula. In the rectum was a large quantity of liquid and coagulated blood. No vessel was discovered which could have been the source of the hæmorrhage.

The solitary glands in the small intestine were much developed.

In the cœcum was a small ulcer, to which a yellowish substance adhered.

The heart contained a little liquid blood. No coagula anywhere seen.

The spleen was of large size, and weighed thirteen ounces.

With the exception of some old adhesions of the pleural and pericardial surfaces, nothing else remarkable was noticed.

Hæmorrhage in typhoid fever is by no means uncommon, but this case is remarkable, both on account of the quantity of blood lost, and the suddenness of the death, the one being the immediate cause of the other. It is also rare to find the source of the hæmorrhage.

Dr. Jackson remarked that he had never discovered the source of intestinal hæmorrhage in typhoid fever, but in one instance. The case was that of a little girl, who was apparently but slightly ill. Hæmorrhage from the bowels commenced one morning, and she died at noon. An ulcer was found, hanging off from which a slough was seen. Dr. J. added that sloughs are not uncommon in this affection, and it might perhaps be expected that fatal hæmorrhage would be more common than it is.

Aug. 24th.—*Hæmorrhage from a Pelvic Abscess opening into the Uterus. Death three weeks post partum.*—The specimen was sent by Dr. D. W. Cheever to Dr. Bowditch, who read an account of the case.

E. O'B. was taken in labor with her second child, in the evening of July 26th. Dr. C. was with her from 2 to 5 A. M., of the 27th, when a male child was born. Before the head had descended, she bled considerably from the vagina. The blood was florid, but not in any alarming amount. The labor was natural and not peculiarly difficult. The placenta came away in about ten minutes. There was no hæmorrhage. The uterus seemed rather large, but quite firm. Left her at 6.

At 10½ on the next forenoon, it was found that she had bled considerably. The pulse was very small; extremities cool; and the respiration rather gasping in character. The hand was passed into the uterus, which still was large as felt through the abdomen, but also firm. No clots of consequence were found; and the organ was well contracted. Under the influence of stimulants, ergot, &c., she improved, and during the next few days went on well, excepting tenderness and pain in the right iliac region and over the uterus. This was relieved by fomentations and soothing enemata. She convalesced well, to all appearance, until Aug. 7th, when she had two attacks of profuse hæmorrhage, which was restrained by the usual means; also a

slight return Aug. 8th. At this time a tumor was detected in the right iliac region, there being also some tenderness there. With bandaging, tonic doses of ergot, laudanum, astringents, cold, &c., she had no more hæmorrhage until Aug. 11th, when perhaps twelve ounces of blood escaped, after a sudden movement, and it was noticed that blood escaped from the vagina on tightening the bandage; still the uterus felt firm, and a vaginal examination showed the os uteri only large enough to admit one finger.

The patient was considerably reduced, and the secretion of milk almost suspended. She was put upon wine whey, broths, quinine, &c., and improved steadily for a week. The color and spirits returned—the milk improved; pain, &c., diminished; and the uterus grew smaller. The tumor was still discernible.

*Aug. 18th.*—Early in the morning, Dr. C. was called, and found she had bled considerably. Lips pale; surface cool; respiration gasping. There was jactitation, and the patient was delirious. She died in twenty minutes—just three weeks *post partum.*

*Sectio Cadaveris, eight hours after death.*—Rigor mortis; body anæmic, but well filled out; thick layer of fat over the abdomen. A tumor was felt in the right iliac region, and on pressure over the uterus blood gushed from the vagina. On opening the abdomen, the uterus appeared large, and on the right side was a cyst, under the same membrane as the uterus, and looking like an outgrowth from it; the mesentery was slightly adherent to the left Fallopian tube. A portion of the ileum and cœcum was adherent to the cyst. Ecchymoses existed in peritoneum. There were no signs of recent inflammation in the peritoneal cavity. The intestines were normal, but very bloodless. The ovaries were normal and free. The right Fallopian tube was much injected. The bladder and vagina were normal. The cavity of the uterus empty. The placental attachment seemed to have been at the fundus. Half an inch inside the os uteri, on the right side, was a rounded opening, admitting one finger, which communicated with a cavity from three and a half to four inches deep; also with other sinuses or cavities in various directions between the psoas and iliacus muscles, yet apparently circumscribed between the folds of the broad ligament. This cavity contained much pus, mixed with fresh blood, making a thick pinkish fluid, and some clots. There were very extensive and strong attachments of the cyst to the neighboring parts on the right side. The cellular tissue in the vicinity was so infiltrated with dense lymph that it could not be dissected off.

The patient was a stout, plethoric and very stupid Irishwoman. Said she had flooding after her first child, and remained with a big belly and tenderness. The child is healthy.

Now when and why was this abscess formed? If after the first child, how did she preserve her flesh and strength? If after the second, why were there no more signs of suppurative inflammation? The appearance of the abdomen did not look like recent troubles; yet the blood which escaped during labor may have come from the cavity of the cyst; and the hæmorrhages which killed her undoubtedly did.

Dr. Gay remarked that this seemed to have been an instance of *abscess in the right broad ligament.* He had seen several such cases in Paris, and particularly in the wards of M. Trousseau. He referred to *three* or four cases seen by him here. He also mentioned a case

abscess in the broad uterine ligament, in which, after death, a bony cyst was found, containing pus. This was one of M. Pigné's cases, the Curator of the Musée Dupuytren at Paris.

To a question of the frequency of these abscesses, here, Dr. STORER replied that he had never met with an instance.

Dr. ELLIS alluded to a case of tumor in the right iliac region, observed by him some years since, and referred to this affection.

Dr. C. E. WARE saw a tumor in the iliac region, supervening after confinement in one of his patients; it opened externally. In another patient there was a copious discharge of pus from the vagina, but this was not *post partum*.

Dr. C. D. HOMANS mentioned a case, occurring directly after delivery, the seat of the abscess being in the iliac region. This opened externally.

Dr. J. P. REYNOLDS alluded to two cases, given in the *Archives Générales de Médecine*, during this year, with drawings. In one, the patient had been supposed to have pelvic abscess, but the tumor proved to be a hard mass, behind the uterus, and which also projected into the vagina. The case was related as affording a warning against inconsiderate puncture of tumors in this situation.

Dr. BOWDITCH thought that instances, like that narrated by Dr. Cheever, must be very rare. There were no indications during life; *bleeding* being the first alarming symptom.

AUGUST 24th.—*A Traumatic Encysted Hæmatocele of the Spermatic Cord.* The case was reported by Dr. G. H. GAY.

The patient was Mr. G. H. F., who had lately presented himself as a candidate for admission at West Point, and was temporarily rejected by the examining surgeon, on account of a supposed hydrocele of the cord. He consulted Dr. G. in July. At the examination, a swelling as large as a hen's egg was found in the right half of the scrotum, midway between the testicle and the external abdominal ring, though nearer the last. To the touch it was light, firm, tense, and elastic, evidently not a solid substance. No transparency could be detected, nor was there any trace of communication with the abdomen. The skin and subjacent layers were movable, and apparently in no way adherent to the swelling. From its situation and general appearance, it was thought to be a hydrocele. The cord could be followed till it was lost in the swelling. The most important point in the history of the case was not mentioned by the patient until the morning after the operation, when he stated that while playing ball in February, he accidentally received a blow from the bat upon the right side of the scrotum. Immediately a swelling commenced, and in a few days had increased to the size of one's fist. It then gradually diminished and remained stationary, being about as large at the time of the operation as it was a month after the injury. For the first week there was considerable pain, but since that time there had been no suffering, and the only inconvenience that had been experienced was that he could not keep his right leg crossed for any length of time over the left one.

On the 17th day of July, a small trocar was forced into the swelling, and nothing came but a drop or two of blood. The canula could be felt moving in something evidently soft. A more thorough operation was then decided upon, and an incision, three inches in length, was made

through the skin, from the top to the bottom of the swelling. After carefully dividing the different layers, it was seen that the vas deferens and the other elements of the cord were spread out over the swelling. On further examination, the swelling felt firm and elastic, but nothing like liquid fluctuation could be detected. The vas deferens and the veins were then separated by an assistant, and the incision was carried fully down to the cyst. Being thus fairly exposed, it was found to slip out from every part as easily as a fatty tumor. At the time, this easy and entire enucleation of so large a mass in that region, seemed singular. There was no pedicle of communication with the abdomen, nor any connection with the tunica vaginalis. It was an independent cyst, enveloped by the veins, vas deferens, &c., of the cord.

After the removal of the swelling, a section was made of it, and it proved to be a cyst, with pretty thick, firm, yellowish white walls, the interior of which was filled with coagula and fibrinous layers, similar to the interior of an aneurism. The coloring matter had disappeared from some of the layers, and they were of a leathern color.

The spermatic veins were in a healthy condition.

The chief points of interest in the case are, that so *firm, regular and complete a cyst should have formed between February and July; that it had no connection with the tunica vaginalis; and that it came out as easily as a fatty tumor.*

What would have been the character of the cyst, if left to itself? Would it have become fibrous?

August 24th.—*Malignant Tumor of the Jaw in a Child; Death; Autopsy.* Dr. Fifield, of Weymouth, reported the case.

Marshall, a child, three years of age, became blind of the right eye, apparently from a cataract, within a few weeks after birth. The child was presented to the surgeons of the Boston Eye and Ear Infirmary, for operation, but the case was declined, on the ground of supposed malignancy. Shortly afterward it became blind of the left eye. The child was then shown to Dr. Henry W. Williams, who also declined operating. The general health remained good until the last week in May, 1857, when a tumor, of the size of a small chestnut, appeared on the body of the right half of the lower jaw. This was supposed to be mumps; was shown to Dr. Stevens, and by him to Drs. Lewis and Gay, by whom the diagnosis of osteo-sarcoma was established. The child was then removed to West Randolph. On the 3d of July, Dr. F. saw the case for the first time. The tumor had then attained the bulk of a small orange, surrounding the jaw, distending the cheek, pushing the tongue to the left side, and rendering the mouth incapable of closure. There had been one or two attacks of hæmorrhage from the tumor.

*Sectio Cadaveris.*—A partial examination of the body was made on Sunday, August 23d. The tumor had enormously increased since the visit, filling the entire cavity of the mouth. The teeth were loosened, and easily removed by the finger. The right eye had protruded, in the form of a black fungus. On reflecting the integuments, the tumor was found to have passed the symphysis, and to have invaded the left half of the jaw, by about half the length of its body. On the right side, the body, angle, ramus and articulation had been successively attacked and enveloped by the disease. Up-

ward, the disease had passed under the zygoma, and had penetrated the spheno-maxillary fossa. The bones comprising the base of the skull were thickly plastered with encephaloid. On attempting to remove the jaw, it was found to be spontaneously fractured at the angle. By the positive command of the parents, the removal of any portion of the tumor beyond the symphysis was forbidden.

The bulk of the whole tumor probably equalled that of a large orange, or perhaps, more correctly, a shaddock. On the removal of the fungus, representing the right eye, the walls of the orbit were seen thinly covered with encephaloid, the protrusion of the eye-ball having been caused by malignant disease within itself, and not by any pressure posteriorly.

The above case is *very* remarkable in several points: *first*, the age at which the malignant cachexia first showed itself within the eye; *secondly*, the length of time it remained confined inactive, in the eye-balls; *thirdly*, the terrible rapidity of the growth as manifested in the jaw, it having required less than a period of three months to bring it from the size of a small chestnut to the bulk above mentioned, and to destroy life.

August 24th.—*Uterine Hydatids.* Dr. Fifield reported the case.

Bridget M'Ginnis, æt. 36, mother of six children, first supposed herself pregnant in April, 1857. She missed her monthly period in May. Two monthly periods had been missed, when they re-appeared, as she supposed. After this the hæmorrhage was not entirely suspended. It would stop a day or two, and then return. Vomiting was occasionally present, which she thought remarkable, as she had never been sick while pregnant. On the 24th of June, she lost a child by scarlet fever. On the 26th, Dr. F. was called to see her, on account of profuse flooding. Placing the hand upon the abdominal walls, the volume of the uterus appeared equal to that of a woman between four and five months pregnant. Upon examination *per vaginam*, the os uteri was found firmly closed, and the anterior and posterior lips curiously fissured. Supposing the woman to have been in error with regard to the period of her pregnancy, and that the case was one of threatened abortion, although no pain was complained of, the vagina was firmly plugged, cold cloths, &c., being applied to the abdomen. Vomiting was also present. The next day the hæmorrhage had ceased. Stethoscopic examination was made, but without detection of the fœtal heart or the placental souffle. Vomiting still continued. From this date to the 29th of July, hæmorrhage continued to recur at intervals of a day or two. Vomiting also continued, without being alleviated in any degree by the remedies used. Emaciation was extreme. At this period the vomiting suddenly ceased, and the patient became able to take food. Hæmorrhage, however, continued to recur at short intervals, the fluid being always blood, and never water, or water and blood, described by text books as diagnostic of uterine hydatids. From this time the uterine tumor occasionally appeared much reduced in size, but always regained its former volume, i. e., that of a woman five months pregnant. On the 20th of August, on examination, the os uteri was found slightly dilated. On the evening of the 21st, it was still more dilated, admitting the passage of the last phalanx of the forefinger. Judging the termination of the case to be at hand, although no flowing *was then present*, the vagina was firmly plugged,

a T bandage applied, and directions given, if urgent pain should come on during the night, that the bandages be loosened, and the pains allowed to force away the sponges.

About 3 o'clock the following morning, the pains being severe, the orders were complied with. At 5 o'clock, Dr. F. saw the patient, and found that the plugs and between two and three quarts of uterine hydatids had been discharged. The flooding had been profuse, and the patient was much exhausted and debilitated. She rallied by the use of stimulants, and for the succeeding fortnight regained, in some measure, her accustomed health. Since that period hæmorrhage has occasionally recurred, once rather severely.

The following points in the above case are to be distinguished as pointing to the rational diagnosis of uterine hydatids. *First*, repeated hæmorrhages, occurring at short intervals, never more than forty-eight hours apart, unaccompanied by pain. *Secondly*, the disproportionate size of the uterine tumor with the supposed period of pregnancy. *Thirdly*, the absence of stethoscopic phenomena, and absence of motion. *Fourthly*, the excessive vomiting, commencing earlier and continuing longer than usual in pregnancy.

The fact of the flow having been always of blood, and never of water, or blood and water, may be especially noticed.

In connection with this case, reference may be made with great advantage to the *London Lancet*, vol. ii., 1853, page 295, case of Uterine Hydatids, reported by J. Wearne, Esq., Cornwall. In the same volume also, page 366, is a case of Uterine Hydatids, by P. H. Squire, Elmira, N. Y. In both these instances the symptoms exactly corresponded with the above case. Reference may also be made in the *Lancet*, vol. i., 1855, to a report of the Medical Society of London, where Dr. Winn called the attention of the Society to a fatal case of uterine hydatids, complicated with hæmorrhage. In this case a ragged ulcer, about the size of a shilling, was found at the upper and anterior part of the uterus. A discussion was had by Drs. Routh, Headland, Winn and Dendy, in regard to the absence of discharge of watery fluid in uterine hydatids.

SEPTEMBER 14th.—*Vicarious Paralysis.* Case reported by Dr. JACOB BIGELOW.

Dr. Bigelow was called, Jan. 15th, to visit the wife of a sea captain, belonging to Maine. Age 48. She had been troubled for some years with a cutaneous eruption (eczema impetiginodes). The eruption was in an improving state when Dr. B. saw her first, but there still remained on various parts of the body large red spots, with psydraceous pustules, dry scales, scabs and cracks. She had sent for him chiefly on account of pains, seemingly of a neuralgic character, affecting her limbs, and depriving her of sleep. She had for some time had a numbness in her fingers and toes, for which and the pain, she had been advised to take a "rum sweat." Next morning after this appliance, she found her lower limbs powerless, and from that time she was unable to stand or walk for seven weeks. The paraplegia extended upward, and in the course of two weeks both arms lost their motility, and the numbness became very general. The left side was most affected, and the left upper eyelid could not be raised. In the middle of February she was reduced to a helpless state, being unable to feed herself, or

turn in bed. At the same time the cutaneous eruption had nearly disappeared, being reduced to a few pale, inconsiderable patches. Meanwhile the excretory functions went on well; the articulation, respiration and deglutition were sufficiently good. The catamenia were irregular, in periods of from three to six weeks, apparently approaching their termination. During all this time the pulse was rapid, 120, and sometimes more, and the tongue loaded with a whitish coat.

About the beginning of March, the eczematous eruption began to re-appear in various places, and to spread to a considerable extent. With this occurrence there came a lightening of the paralytic symptoms, and the powers of motion and of sensation began to return. By the middle of the month she was able to rise from her bed without help, and in a few days walked freely about her chamber. After some satisfactory essays at riding in a carriage, she took the cars for New York in the beginning of April, having a sore skin, but not a vestige of paralysis.

This apparently grave case, which at one time justified the most unfavorable prognosis, proved to be only excentric, mimotic and metastatic, occasioned, no doubt, by the receding of the eruption at a time when the whole system was rendered susceptible by the critical age of the patient.

Sept. 14th.—*Pelvic Abscess.* Dr. Gay reported the case.

The patient, Miss. H., single, æt. 25, just previous to her sickness in March last, was rosy-cheeked, moderately full in flesh, and weighed 120 pounds.

During the first week in March, she was seized suddenly with violent vomiting and diarrhœa, which, after continuing two or three days, gradually ceased. The day before this attack, she had eaten not heartily of baked beans and Indian pudding. This was considered to be the cause of her sickness, though she had often before eaten of the same dishes.

Before she had fully recovered from this seizure, she noticed that her catamenia had made their appearance, but the amount was so slight as not to cover a space larger than a dollar upon the napkin. She thought but little of this circumstance, because for the last three or four years there had been a marked diminution in the quantity at each returning period. Being naturally very timid and modest, she had made no complaint, although she suffered much every time she was unwell. In fact, she has since said, that she did not know whether or not it was right for the discharge to stop.

The day after this last small catamenial show, there was severe pain situated deeply in the right side of the abdomen, just above Poupart's ligament, in the region of the ovary. The pain increased, and was accompanied with great tenderness on pressure. At this time no swelling was observable externally, nor could any be felt distinctly, on account of the soreness. A poultice was applied for two weeks, when the pain and soreness gradually disappeared. Almost immediately after this relief to the *right* side, she was seized with acute pain in the corresponding region of the *left* side, followed in a few days by great tenderness and swelling. This swelling was situated just above Poupart's ligament, midway between the anterior superior spinous process of the ilium and the median line, though nearer the last.

There was soon considerable constitutional disturbance, and in addition to the other symptoms, great pain and difficulty was experienced in passing the urine, and only a small quantity came at a time. Directions were given to rub the seat of the pain with iodine ointment for twenty minutes at a time, every two or three hours during the day. This treatment, by report, was continued several days.

For five days no operation from the bowels took place, although purgatives and injections were frequently given. Croton oil was sent for, and a slight evacuation occurred just as it reached the house. For the trouble in the urine, poplar bark tea was recommended by a friend, and a large quantity of it was drunk. There was now a throbbing, distending pain in the swelling, which had a heavy, dragging feeling, with an increase in the severity of the other symptoms. Occasional paroxysms of bearing down and straining came on, which added much to her sufferings. During one of these attacks, there was a sudden discharge from the vagina of half a pint or more of thick yellow, fœtid pus. The swelling almost entirely disappeared, and there was great relief to the pain and other uncomfortable feelings. About two hours afterward, there was passed a pint or more of high-colored and very offensive urine, with a copious, thick, brick-dust sediment. For a few days she was comparatively comfortable. The discharge of pus from the vagina ceased entirely after thirty-six hours. The bowels still continued very costive, though they were occasionally relieved by purgatives and injections. The patient was now very feeble, and had lost much flesh. There was no appetite, nor any inclination to take any nourishment. While in this condition, another recurrence of the pain came on in nearly the same spot, more acutely severe than before. The discharge from the vagina had ceased ten days before. At the same time with the pain, she was seized with vomiting of fæcal matter. This was near the third week of April. The vomiting continued at intervals during five days and nights. No evacuation could be obtained from the bowels. Various purgatives and enemata were given, but without relief. Another swelling was now discovered just above the last one, which soon became exceedingly painful. The slightest coughing or pressure of the hand made her cry out, as also the weight of the clothes. Her thighs were constantly flexed toward the abdomen. The left side of the abdomen was much distended with flatus, which kept up a constant distress and uneasiness, in addition to the other pain. Nothing would seem to pass beyond a certain point in the pelvis of that side. Soon after an injection, there was a small discharge of black, offensive, slimy, jelly-like substance. The vomiting ceased. The patient was very feeble, nervous and restless. The loss of sleep and appetite, and the constant severe pain, had reduced her in every way. The bowels were moved slightly every two or three days, and the discharges were of the same character as above. After several days of quiet, she again vomited, twice in the same day, the ejecta this time containing nothing but bile, and being without the least fæcal odor. This was the last attack of vomiting. The stomach was now able to bear some nourishment.

Being somewhat dissatisfied with her medical attendant, she sent, on the 7th of May, the day after the last vomiting, for a clairvoyant, *homœopathist* and spiritualist. He continued in attendance about

two weeks. At his first visit, the swelling could be just covered externally with a tumbler. He expressed his ignorance of what the disease was, and immediately engaged the services of a female medium. She at once declared it to be a *rupture*, and advised a rubbing *downward* of the swelling toward the groin. As the swelling spread in that direction, she said it must be rubbed *upward*. By this time, the lower part of the abdomen, particularly on the *left* side, was involved in a general swelling. As the patient was failing rapidly, they held a consultation with a surgeon, who pronounced it to be a *psoas abscess*, and that she would die if it was touched. The swelling increased in size daily, and three days before Dr. G. saw her it had extended over the median line to the right side. Dr. G.'s first visit to her was on the 25th day of May, 1857. She was then in almost a moribund condition, and so emaciated that she would hardly weigh eighty pounds. Her pulse was very small, thread-like, and counted with difficulty.

In the lower part of the abdomen, on the left side, was a large fluctuating swelling, filling up this space, and extending somewhat over to the right of the median line, very tender to the touch, and evidently containing fluid. On percussion, there was dulness over a space of four or five inches in extent. The skin was slightly red, and adherent to the parts beneath. For four days there had been no dejection, and the upper half of the abdomen was much distended with flatus.

At first it was hardly thought prudent to attempt any operation, on account of her great prostration. But on the consideration that she would surely die very soon if left to herself as she was, it was thought best to give her stimulants, and make a small opening. This was accordingly done at a point two or three inches above Poupart's ligament, and about one half of a pint of thick green, offensive pus, like that from an abscess of one of the labia, came away Stimulants were then ordered to be given at intervals during the day and night. She had some quiet and comfortable sleep. The next morning she was decidedly easier in every respect, and stronger. The opening of the day before was then prolonged an inch or more, and more than a pint of the same kind of pus was gradually pressed out. Stimulants and beef-tea were then given every hour. The pulse, though very small, had more strength. Her countenance, general appearance and action were better. The second day after the last operation, she had a small dejection following an enema. From this time there was a slow, but steady improvement in all her symptoms. In six weeks she had a strong appetite, and was able to si up in bed; and now she is going about as she did previous to her sickness. About the first week of September she had a return of the catamenia, and thinks they were more abundant than for a year past.

As to the diagnosis in this case, the antecedents in the patient's history show for a long period an increasing disturbance in the menstrual functions. The primary attack on the *right* side, the deep-seated locality of the pain and the region, together with the sudden stoppage of the menses, would strongly indicate an inflammation of the ovary, terminating, as it naturally does, in resolution. The attack on the *left* side, similar in the part affected, but much more painful, and terminating in an abscess, with the uterine bearing-down pains and the sudden discharge of more than half a pint of pus from the vagina, warrant

the conclusion that the inflammation involved the ovary and the adjacent cellular tissue, which terminated in an abscess, called an *abscess of the broad ligaments*, very rare in *unmarried* females, and *less fatal* than in cases *after confinement*. The termination of these abscesses is various, according to the circumstances of the case, opening into the vagina, uterus, bladder, rectum or peritoneal cavity.

The fæcal vomiting may be accounted for from the pressure of the abscess, as it increased, upon the intestine, this being sufficient to produce a temporary closure of its canal.

There was no vaginal examination, because the patient was in an almost moribund condition.

The abscess opened into the uterus, or upper part of the vagina, and was entirely emptied in a little over twenty-four hours.

The almost immediate recurrence of the symptoms may be explained by the closing up of the opening into the uterus or vagina, while the secretion of pus went on increasing daily, and advanced more rapidly toward the abdominal wall than in any other direction.

In the extremely low condition of the patient, she would most probably have died, before the abscess, if left to itself, could have broken either externally or internally.

Sept. 28th.—*Disease of the Eye, probably Cancerous.* Dr. Williams exhibited a disorganized eyeball, removed from a boy six years of age. The only history he could obtain of the case was, that the parents had noticed a dull appearance of the eye and loss of vision two years previous to the operation, but no pain or inflammation had occurred till within four weeks. Since this time he had suffered severe attacks of pain, with, at times, redness and swelling of the conjunctiva. These severe symptoms had subsided on the appearance of a protruding ridge on the lower and inner portion of the cornea, and involving the adjacent sclerotica. This seems to have been formed by a giving way of these structures.

At the time of operation (September 24th), there was little redness of the tissues, and the slightly enlarged globe, though very hard, was not painful and was perfectly movable in the socket. The slow progress the disease had manifested, with the absence of implication of other tissues of the orbit, seemed to render an operation proper, as there might be a chance that the disorganization was of a strumous rather than a malignant character.

The globe only was removed, and the muscles, together with the cellular tissue of the orbit, left *in situ*. The wound healed at once, almost without suppuration.

The disease was found not to extend outside the globe. On being divided, the organ was found filled with cheesy-looking masses, separated by portions of substance of gelatinous appearance.

Microscopic examination was made by Dr. Ellis, who found the masses composed of cells of suspicious aspect, intermixed with coarse fibrous organization.

Sept. 28th.—*Fungoid Disease (Villous Cancer) of the Bladder; Echinococci in the Lung.* Case reported by Dr. Gay.

D. R., married, æt. 71, was in the enjoyment of good health up to last February. About that time he was obliged to pass his water oft-

ener than usual during the day. In a short time, the same thing happened in the night. The quantity passed at any one time was small. The amount in twenty-four hours was somewhat beyond the average. There was no material change till the last of May, when there was an occasional pain in the glans penis and right testicle, but not enough to cause much inconvenience. In June these last symptoms increased, with a bearing-down sensation in the perinæum. He was now obliged to pass his water oftener in the night. As the remedial measures had given no decided relief, and as a brick-dust sediment had been noticed in the vessel for the last few days, a catheter was introduced, easily and without any pain or obstruction, into the bladder. Nothing was detected at this examination, nothing like a calculus, no sign of an enlarged prostate, nor any symptom of an inflamed or irritable bladder. By the rectum, the prostate felt smaller than natural. The bladder beyond was soft, yielding and not distended. Pressure gave no pain nor feeling of soreness. There was no symptom in the region of the kidney from percussion, or from his statements, to localize the disease at that point. Everything seemed to proceed from the bladder. The diagnosis was obscure. In July, for the first time, he noticed some coagula in his water. A few days afterward, in attempting to pass his water early in the morning, nothing would come. This was the first time that his water had not passed easily and freely. By straining a few moments a coagulum was forced out of the penis, and then about a pint of pretty clear water came away. From this time, up to his death, blood was constantly passed and in increasing quantity, except during a period of three or four days while he was at the sea-shore, when the water was entirely free from blood. Sometimes a teacupful of coagula would be passed in the night, without any water following; at other times the blood would be liquid and well mixed with water. During all this time, there was no pain nor tenderness in the region of the bladder. A rectal examination, a few days previous to death, did not disclose any symptom to aid the diagnosis, *except by exclusion*. He walked out daily till two weeks ago, when a more copious hæmorrhage than he had had before, amounting to about two thirds of a pint, reduced him so much that he was obliged to keep his bed. Of late, from the absence of other symptoms, and from the particular and increasing prominence of the blood, the diagnosis rested, by exclusion, upon a malignant disease. While in bed, he said he had an uncomfortable sensation about his hip, as if it was rheumatism. He gradually failed, from the continued loss of blood. Two days before death, he complained, for the *first time*, of pain and soreness about the left kidney. The next day he made an attempt to empty his bladder. Nothing came but a pint or more of fresh blood. He fainted and was convulsed. From that time he sank more rapidly, and died early the next morning.

*Sectio Cadaveris*, by Dr. Ellis. The body was much emaciated, and the tissues generally pale.

The bladder contained much dark coagulated blood. Attached by a broad pedicle to the posterior wall, just behind the vesical trigon, was a round, soft, vascular, encephaloid growth, an inch and a half in diameter. The upper surface was covered with a thin calcareous matter. On placing it in water, *flocculi* or villosities became visible. On microscopic examination, there were found large irregular cells of va-

rious shapes, some of them containing large nuclei with large nucleoli. The nuclei of many resembled those of epithelium. Villi were not noticed under the microscope by Dr. Ellis, but were found by Dr. Shaw. Many bloodvessels were seen. The muscular coat was somewhat hypertrophied. A few small nodules, probably growths from the prostate, surrounded the opening of the urethra.

Both ureters were dilated, particularly the left.

The pelvis and infundibula of the left kidney were dilated. A little blood adhered to the limited portion of the lining membrane of several of the infundibula. The membrane here and there was opaque, yellow or reddish. In the substance of the kidney was a cyst half an inch in diameter, resembling those commonly found in the organ. The right kidney was healthy.

At the apex of the left lung was a layer of white, dense, fibrous tissue, about an inch in diameter, and between one and two lines in thickness. The surface in the immediate neighborhood was rendered opaque by thin patches of the same. Beneath the dense white substance was a layer of pulmonary tissue, of about the same thickness, and within this a cavity upwards of half an inch in diameter, filled with serum and lined by a thin bluish-white membrane, which was everywhere studded with yellowish-white points. Most of the serous fluid was lost. That which remained was of a yellowish color, and contained a large number of echinococci, detached hooks and a few concentric corpuscles. The lining membrane itself was covered with the same parasites. It presented the usual striated appearance. The remainder of this and the other lung were perfectly healthy.

Nothing remarkable was noticed in the other organs.

Sept. 28th.—*Imperforate Rectum.*—Dr. Cabot showed the specimen, which was from a patient of Dr. Storer, and gave the following details of the case.

He saw the patient on the fourth day after birth, in the evening, at which time it was reported that no discharge had taken place from the bowels. Castor oil had been given, but was rejected. An injection had also been ordered. The abdomen was now found distended. On examination per rectum, the finger passed in about one inch. When the child strained, the intestine could be felt pushing downward, the central portion of the part thus pushed down feeling considerably thicker than membrane. A trocar was thrust in, and a large quantity of fæces and meconium discharged.

On the following morning, two probes were passed in through the opening, into the intestine, as was supposed, the largest being left in, and a piece of gum-elastic catheter pushed down upon it. In the evening it was reported that nothing had passed through the canula. The child had also vomited fæculent matter. The opening was now enlarged by the knife and the intestine punctured; this being followed by the discharge of a small quantity of gas and meconium. Death took place on the following day.

It was found, on examination, that the internal and external cul de sac approached to within about a half inch of each other, and that the probe and catheter, instead of passing through the original opening into the intestine, had made a false passage in the cellular substance, by the side of the gut.

Dr. Cabot remarked that the objection to the operation by puncture, in these cases, is the liability of the opening made to contract, sooner or later. He advocated the method that is reported to have succeeded in several instances abroad, viz., by cutting down freely, drawing down the intestine and stitching it to the skin.

Sept. 28th.—*Enlarged Prostate.*—The specimen was shown and the case reported by Dr. Gay. Caleb B., aged 77, had never noticed any difficulty in passing his water, till three months ago, when, without any known cause, he found he was unable to void a drop. He sent for his physician, who easily relieved him with a catheter. There was no further trouble till Sept. 9th, when there was a recurrence of the inability to force any water from the bladder. At this time his physician was unable to relieve him, blood only coming away. The next day the desire to pass water was very great. There was a prominence above the pubes, tender to the touch, fluctuating, dull on percussion, midway between the pubes and umbilicus, and the seat of constant and severe pain. The bowels were regular. In the afternoon, at Dr. Gay's first visit, he was walking about the room, bent over, and with both hands supporting the lower part of the abdomen. He appeared in great distress. The lower part of the abdomen presented the condition as mentioned above. On introducing a catheter of very large size, and with large openings at the end, an obstruction was felt to its easy course somewhere behind the scrotum. On withdrawing it, a long, large coagulum escaped from the openings. The instrument was again slowly introduced, and again met with a roughness and obstruction. It was removed, and a similar coagulum came away. A third attempt was made, without using the slightest force, and, by the help of the finger in the rectum, the catheter went immediately into the bladder. At first some coagula came, followed by a pint and a half of clear water, and afterward by some liquid blood. The relief was instantaneous, and the swelling below the umbilicus subsided. In the region of the prostate was felt a large, firm, elastic swelling, as far as the finger could extend, flattening the rectum from above downward. There was no tenderness here on pressure. The patient had some sleep that night. On the next morning, the bladder was again filled, and there was the same inability to get a drop of water. His physician could not succeed in passing a catheter into the bladder. He was sent up to the Hospital, and, in the absence of Dr. G., Dr. Townsend succeeded, without much difficulty, in passing an instrument into the bladder and drawing off nearly a quart of bloody water. Again, on the following day, the symptoms were all as before. The soreness above the pubes was very marked, and there was an evident swelling, rising toward the umbilicus. Drs. Townsend and Gay made many unsuccessful attempts to pass the catheter. It would go nearly its whole length, but still nothing would come. The coagula were found as before. It evidently was external to the bladder. In the afternoon, there was a quick pulse, rigors, flushed face, headache and thirst. The soreness and swelling above the pubes had so much increased, that an attempt to reach the bladder with a trocar, through the rectum, was made, but without any success. The trocar seemed to lodge in some hard mass. A consultation was then held, and after a careful and thorough examination, the general opinion was against

any active proceedings at that time. Some difference of opinion was expressed as to the nature of the difficulty. The next day, the symptoms were decidedly worse in every respect. The swelling reached nearly to the umbilicus. On conferring with Dr. Townsend, it was decided to attempt to relieve him either by the rectum, above the pubes, or by an operation as for lithotomy. The trocar luckily entered the bladder, and nearly a quart of thick, ropy and offensive water came away. The swelling above the pubes disappeared. The tenderness was very great. The next day he was generally worse and frequently inclined to coma, and he died early on the day following.

*Sectio Cadaveris.*—The patient was a large, fleshy man, with a naturally full and prominent abdomen. Between the os pubis and umbilicus was a well-defined swelling, moderately tense, and flat on percussion. This swelling could be seen as well as felt, and reached nearly to the umbilicus. On a section of the abdominal parietes a layer of fat, two and a half inches in thickness, was found covering them, which, in a measure, masked the extent of the swelling beneath.

The bladder was high up in the lower part of the abdomen, and about two-thirds full of a dirty, bloody fluid, having a strong urinous and ammoniacal odor, with a thick, ropy deposit. No pus was seen.

On opening the bladder, its walls were found to be a little thicker than natural. The interior showed no particular signs of any inflammation, but muscular bands were strongly prominent throughout and intersecting each other in every direction. A large tumor could be felt in the region of the prostate gland.

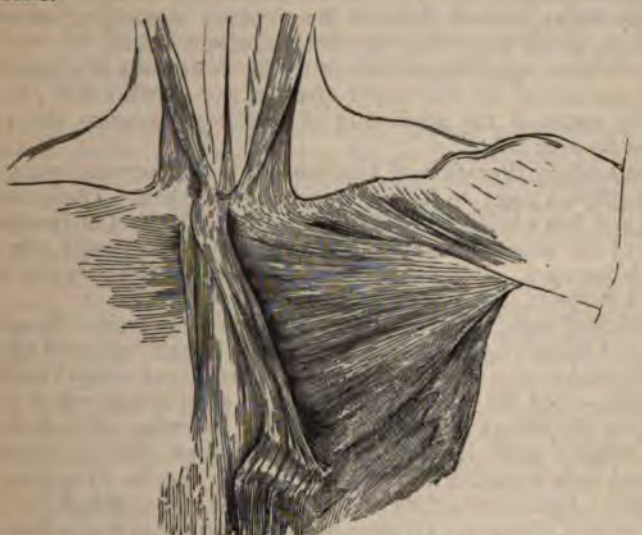
The bladder and penis were then removed entire, and the urethra was laid open through the dorsum of the penis, along the median line, through the enlargement of the prostate, till the incision met with the opening upon the upper surface of the bladder. The whole floor of the urethra and bladder was fully exposed. Both lateral lobes were greatly enlarged. The *left* was oval in shape, two inches in its longest diameter, and about six inches in circumference; the *right* was more regularly rounded and nearly twice as large as the left, the greatest diameter three inches, the circumference nine inches. By far the largest portion of the swelling was above the superior surface of the urethra. The verumontanum was little more than naturally prominent, compressed laterally, with a thin apex, and but little thicker base. Immediately behind this, in the median line, was an oval mass, somewhat larger than a robin's egg, lying transversely across the urethra, in the situation of the so called middle lobe, rising above the surface of the canal, and projecting posteriorly so as to push backward and upward the mucous membrane of the vesical trigon.

On one side of the verumontanum, was a small opening leading into the rectum, undoubtedly made by the trocar. It seemed almost impossible for the catheter to pass along the urethra and enter the bladder.

Commencing at the membranous portion of the urethra, were two or three sinuses, one running into the substance of the right lobe for about an inch, another curving along its under surface and nearly reaching the bladder, and a third posteriorly at a point midway between its superior and inferior surface.

There was no mark of any extravasation of blood.

Oct. 12th.—*The Rectus Sternalis Muscle.*—Dr. Hodges showed the specimen, of which he read a description, together with a brief historical sketch of the muscle, from the pen of Dr. O. W. Holmes, from whom the specimen was received. The form and situation of the muscle may be seen in the accompanying cut, from a drawing by Dr. L. M. Sargent.



"The muscle which has been called *musculus thoracicus, rectus sternalis*, or *sternalis brutorum*, is well shown in this specimen from an adult white male. It arises, tendinous, from the anterior face of the upper bone of the sternum, passes downward and outward, tendinous and adherent at its inner edge; fleshy, and connected to the parts beneath by areolar tissue, in its outer portion: widens somewhat, and is inserted by tendinous slips into the cartilages of the third, fourth and fifth ribs. It lies over the inner edge of the pectoralis major and the intercostal muscles. The little force it can exert tends to raise the ribs and favor inspiration.

"Muscular anomalies, and especially supernumerary slips, are very often met with, and attract little attention. This muscle, however, is both physiologically and historically interesting.

"Physiologically, from its seeming correspondence with the thoracic continuation of the abdominal muscles seen in some of the lower animals, especially in the simiæ. But as that prolongation is placed beneath the pectoralis major, Theile considers the muscle we are examining as related to the sterno-mastoid. The axis of the muscle before us does not coincide with that of either, unless we should consider it as continued from the sterno-mastoid of the *opposite* side.

"Historically, this muscle is interesting from the attention which has been drawn to it by the extraordinary figure given by Vesalius, and the somewhat extensive literature belonging to it.

"In the fifth plate of the second book of the great work '*De Corporis Humani Fabrica*' the recti muscles are represented as reaching to the [illegible]t rib. In his first edition (*Basileæ*, 1543) Vesalius alludes to this

formation as belonging to the simiæ. In the second edition (1555) he adds, 'this broad tendon and fleshy portion is the muscle which Galen calls the fifth of those moving the thorax, which is by no means so obvious in man as in caudate simiæ and in dogs. But we have delineated it for the sake of understanding Galen,' &c.

"Vesalius confesses, on the same page, that being accustomed to swear by Galen, he had favored his opinions more than he ought to have done, at the time when the drawings were made.

"Galen says, speaking of the recti, 'Their summit is a membranous tendon ascending to the upper part of the chest. This, however, naturally escaped the professors of anatomy, because the pectoral muscles lie over it.'

"The modern literature of this muscle would occupy many pages. Meckel gives a page to it, with various references. Theile also mentions it and has a brief reference to Vesalius. The first of these authors speaks of the muscle as being met with pretty frequently, the second as not being rare. I do not remember any thing like this out of many hundred subjects that I have examined.

"John Bell says, in his easy and rather careless way, 'Vesalius, Albinus, and Sabatier, were thought to have found the recti abdominis extending up to the throat. But it is now found that Vesalius had only represented the muscles of a monkey or of a dog, which are very long upon the thorax of a human subject. Sabatier, after revising his notes, retracts what he had said: and Albinus also is supposed to have seen only a production of the mastoid muscle extending down the breast; for irregularities of this kind have been found.'

"Several of the more extensive modern anatomical works do not refer to this muscle, and it may perhaps be inferred that it is not so common as Meckel and Theile seem to have found it. It is one of those anomalies which could hardly fail to attract attention."

Dr. Gay remarked that he remembered a case in which this muscle was found fully developed on both sides, in a male subject of moderate muscular development, it being continuous *superiorly* with the tendon of the *sterno mastoid*, *inferiorly* with the *rectus abdominis*, and situated along the inner border of the pectoralis.

Dr. Jackson was not inclined to regard this muscle as a portion of the rectus abdominis; first, from its being unconnected with the latter; secondly, from the difference in the direction of the fibres of the two muscles; and thirdly, from its having so tendinous an origin, while the rectus is rather fleshy than tendinous in its character.

Dr. Hodges expressed himself surprised that the existence of this muscle is not more familiar; it being alluded to in nearly all the books of anatomy, and accurately described by Sharpey and Quain.

With regard to its connection with the rectus, he quoted the opinion of Meckel, who speaks of the latter as a polygastric muscle, "this formation leading by an insensible gradation to the formation of a special, external, abnormal, sternal muscle."

He thought the existence of this muscular anomaly no more remarkable than that of other muscular slips, often found, and which are usually assigned to contiguous muscles, or are considered as analogues of certain muscles existing in the lower animals. It would seem to require no greater stretch of the imagination to find in this slip an analogy of the long rectus of brutes, than to see in the platys-

ma myoides, which is a muscle of mastication and expression, an analogue of the panniculus carnosus. The great peculiarity in this instance would seem to be its obliquity, to which, so far as he knew, authors had not alluded.

[In further allusion to this subject, the following note has been received from Dr. HOLMES, referring to an article in the *Virginia Medical Journal* for November, descriptive of this muscle, as observed by Dr. JORDAN, of Washington.—SECRETARY.

"The account of the anomalous thoracic muscle given above, is presented to the reader as it was written for the Boston Society for Medical Improvement and laid before the members at the meeting of October 12th. Since then, by one of those singular coincidences which often attract the attention of scientific observers, the muscle in question has seen fit to make itself notoriously prominent.

In the *Virginia Medical Journal* for November, is an article, entitled 'Respiratory Muscle. Observed by Powhatan Jordan, M.D., of Washington, D. C.,' accompanied by a figure representing it, and designating it as 'Jordan's Muscle.' It is described as 'a very beautiful triangularly shaped muscle, arising from the fifth costal cartilage of the side, by a triangular fleshy belly, becoming tendinous about two inches from its origin, passing upward obliquely across the sternum, and inserting by a long, fine, bright, silvery tendon into the tendon of the sterno-mastoideus of the left side, or rather, in common with that muscle, into the left superior portion of the sternum.' It had no fellow. The same gentleman met with a pair of muscles of similar general character in a subsequent dissection. The numerous professors who held an inquest over this myological phenomenon, tumbled over the leaves of 'Sharpey, Harrison, Horner, Wilson, Bichat, Cruveilhier,' and other anatomical authors, without finding any mention of it. An editorial note in the same journal, however, mentions a brief reference to a sternal prolongation of the rectus, in Cruveilhier's Anatomy.

In the mean time, since my note was in the Editor's hands, Mr. Nichols, a student of Prof. Jeffries Wyman, has met with a well-marked case of this muscular anomaly, of which he promises to read a description at the meeting of the Boylston Medical Society.

I had contented myself with little more than references to some of the leading authorities, and feel unwilling to take up more time with this foolish little muscle, which is good for nothing in a practical point of view except to teach professors and editors to be circumspect in proclaiming novelties, and to add a shelf to their libraries. Meckel's account (to be found with the description of the pectoralis major), is so complete, and his work is supposed to be so well known every where in the original, or in Jourdain's translation, or our own Dr. Doane's English version, that the idea of naming the venerable anomaly after any individual of the recent geological formations, is as if one should call the *equus caballus* Mr. Smith's animal, or the *bos taurus* Mr. Brown's quadruped. We are willing, however, to attribute the indiscreet naming of the muscle to the engraver, and not to the observer or his scientific friends, for it is simply called 'respiratory muscle' in the text.

Those who are not tired of the matter may look at the fifth and sixth plates of Vesalius's second book for another of his Galenic muscles

(X. *Tertius thoracem moventium*, fifth plate, and Γ. sixth plate). These old figures are suggestive, but probably wholly imaginary.

The figure accompanying my paper owes something to the artist's imagination, as he had only half of the sternum to draw it from. This bone had been sawed and the muscles of the neck partially removed when the muscle was described. It should have been added in the description that its tendon was continuous inferiorly with the sheath of the rectus, and that a mere trace of a corresponding muscle existed on the other side in the shape of a few longitudinal fibres."]

Oct. 12th.—*Imperforate Anus.*—Dr. C. G Page read a report of the two following cases, prepared by Dr. F. S. Ainsworth. The first was that of a patient of Dr. F. Higginson, of Brattleboro'.

The child, a female, apparently perfect in form, was born May 2d, 1855. The anus presented a wrinkled depression resembling the umbilical pit, but was lined with true skin; there was no appearance of mucous membrane. An attempt to relieve by operative interference was made first with the trocar, and afterward with the knife, but without result. The child lived eighteen days. At the *autopsy*, the following appearances were observed. The intestines were distended with flatus. The bladder contained a small quantity of dark-colored urine. It was drawn up out of the pelvis and lay almost entirely over the symphisis pubis, the urethra making quite a sharp curve under the pubic arch. The uterus was drawn from its normal position and rested on the posterior wall of the bladder, the whole space at the brim of the pelvis being occupied by the inflated rectum. This portion of intestine terminated in a cul de sac at a point just above the levator ani muscle, where the peritoneum is reflected over from the posterior wall of the uterus. At the lowest part of this cul de sac was an ecchymosis a few lines in length, where the muscular coat seemed to have been divided; *the wound did not extend into the mucous membrane.* The bottom of the sac was about on a level with the brim of the pelvis, having apparently been drawn up by the excessive distension, and carrying with it the other pelvic organs.

The second case occurred in the practice of Dr. Ainsworth. The patient was a female child, born on the morning of Monday, July 20th, 1857, being mature and of average size.

On examination, two openings were found in the vagina, one occupying the place of the urethra, the other situated between the internal labia and surrounded by a small red tumor, the size and shape of a common bean. Both these openings barely admitted a common probe, and from both, while under examination, a small quantity of yellow meconium and urine was expelled. There was no external trace of the anus, the skin over the entire perineum being smooth, and the raphé extending to the coccyx. At each expulsion of meconium or urine by the vagina, a slight motion was observed in the perineum, as if some fibres of the levator ani were inserted into the fascia. On exploring the openings in the vagina, it was found that a probe carried upward close to the pubis passed into the bladder, and could be felt on the abdomen; but directed backward and upward, it passed in half its length and then encountered a firm body which was supposed to be the upper part of the sacrum. When passed downward, the point could be *carried a few lin* the orifice and indistinctly felt in the perine-

um. The child being quiet and apparently healthy, it was decided to cut down on the perineum, and, if possible, bring down the rectum. On Tuesday, assisted by Drs. C. G. Page and C. H. Stedman, the operation was commenced by introducing a probe into the lower opening in the vagina and passing it downward as far as possible. An incision was then made along the raphé of the perineum, and continued in the track of the rectum about an inch and a half; the point of the probe was then distinctly felt, the tissues were carefully separated from the cul de sac, and the intestine easily drawn down to the external opening, where it was laid open, the serous surface everted, and confined by sutures to the edges of the external wound. A quantity of flatus escaped at the moment of opening the intestine. A small tent was placed in the wound, a wet compress on the perineum, and a T bandage applied. The patient, until the following Sunday, was attended by Dr. C. G. Page. During that time, the child did well. On visiting the child on Sunday, the wound was looking well. The nurse, for the first time, stated that there had been, since the birth, intervals of great distress in breathing, accompanied by a purple discoloration of the face, neck, lips and ears. These turns increased in frequency, and the child died on Tuesday, having lived eight days.

The following is the account of the autopsy.

The heart was found malformed, there being but one ventricle into which the aorta opened directly at its summit; the only auricle was situated on the right posterior aspect, communicating obliquely with the ventricle. The pulmonary artery was very small, given off below the point where the aorta enters the heart, and on the left side passing upward and backward and bifurcating behind the aorta. An imperfect valve projected into the ventricle, attached by two short and firm columnæ carneæ and by two slight chordæ tendinæ to the upper and lower left sides. The pulmonary veins opened into the auricle. The rectum terminated in a cul de sac about an inch and a quarter from the perineum, and communicated with the vagina from its upper borders. The uterus was bifid. No other abnormal appearances were observed.

Dr. H. J. Bigelow remarked, that, judging from results, he did not consider the operation for imperforate rectum or even for imperforate anus, a desirable one. In the former case, the blind extremity of the upper portion of the intestine is often high up, and it would be practically impossible to maintain any communication with it after operation, except by a fistulous track through cellular tissue having a tendency to contract, to inflame and to become obliterated, like other fistulous openings. This might occur in a favorable case. But in the majority of the cases in which he had operated, he had failed to find the upper gut, even when distended. This result must not unfrequently occur; the peritoneum is often perforated and neighboring organs are injured. Indeed, the region is so deep and the canal so narrow, barely admitting the little finger, that manipulation is attended with much uncertainty, which should be considered, as well as the very unpromising character of the result. Dr. B. had never seen a successful case.

As to *imperforate anus*, he could only speak of one case; in which the tendency to contraction after dilatation was such as to render the life of the little child miserable. Defecation was always attended with

pain, and the constant use of a bougie and repeated scarification were necessary. He believed that in the present state of the art, it is better that a child born with either of these imperfections, should die without this operation, although it must occasionally be performed in déference to established opinion.

Dr. Jackson spoke of the liability to error on the part of the surgeon in operating, and the slight chance of the ultimate success of the operation under the most favorable circumstances. In one case, the rectum was transfixed, the instrument passing through its wall into the peritoneal cavity. In another, the instrument passed up by the side of the rectum without entering it. In a third case, the specimen of which is in the Society's Cabinet, a free opening was made into the vagina. He mentioned still a fourth, where the instrument did not enter the rectum, and probably passed into the cavity of the peritoneum.

With regard to the comparative frequency of cases of imperforate rectum and imperforate anus, his own record showed the number of each to be not far from equal. In remarking upon the prognosis, he alluded to the frequency, in females where this malformation exists, of an opening from the intestine into the vagina, the latter serving as a channel for fæcal matters. In a case mentioned to him by Dr. Mussey, the patient was still living, at the age of 20 years, in whom this opening existed. Dr. J. also referred to this malformation in the pig, where the same peculiarity was observed. (See Society's Records, Vol. I., p. 86.)

In males with this malformation, an opening is sometimes found from the rectum into the membranous portion of the urethra, as in the case reported by Dr. York, to which allusion is made in Vol. I., p. 86 of the Society's Records. In this case the opening made by the operation healed, and the fæcal matters found their way, as before the operation, through the urethra. The child lived about 20 months. Nothing very noticeable was found in the rectum after death. The opening into the urethra was about the size of a common bougie. Dr. J. further alluded to the frequent co-existence of other malformations, in these cases.

In reply to Dr. Coale, who asked the proportion of cases in which operations for this malformation had proved successful, Dr. Cabot stated that the operation by puncture he had never known to prove ultimately successful.

Dr. Jackson said that Dr. J. C. Warren had told him, some years since, in reply to the question as to the success of these operations, that he did not remember a single successful case. Dr. Walker had mentioned to him one in which the operation had succeeded.

Oct. 12th.—*Apoplexy.* Dr Cabot related the following case. The patient was a Scotchman, aged 30, a machinist by trade, who for eight or ten years of his life had been addicted to drink. He had been one year in this country, since which time he had not felt well. For the last two months, he had had pain and an uneasy feeling in the head, which led him to be careful lest it should receive a shock or jar; he had also had turns of yelling in the night, attributed by those about him to delirium tremens.

On the 27th of September, he was taken, after breakfast, with vomit-

ing. At about half past ten, he was found upon the floor speechless, but noticing those about him. Dr. C. saw him at 2, P.M. He had then had two convulsions; he also had one during his visit, which was violent, and epileptiform in character; both sides were equally convulsed, the head being twitched first to one side, and afterward turned to the opposite. The pupils were dilated, and the pulse, during the paroxysms, was over 100 in frequency, and quick, being, in the intervals, about 70. The tongue was not bitten.

Cold was ordered to the head, counter-iritation to the lower extremities, and a turpentine enema. Between the visit and the evening, the patient had eight convulsions, and grew worse. In the evening, he had a free evacuation from the bowels. Croton oil was ordered; to be repeated if necessary. The skin was covered with a profuse perspiration from the first.

During the night he had six more paroxysms, and died at 4, A.M. He was comatose, but not convulsed during the half hour immediately preceding death.

On examination, by Dr. Ellis, the longitudinal sinus, the veins emptying into it, and many in the pia mater, were found filled with blackish coagula, evidently formed some time before death; the surface of both hemispheres, and particularly of the left, was of a red color, the redness, on section, involving in many places the whole thickness of the cortical substance. In the posterior part of the right hemisphere was a well-marked apoplectic effusion, of which there were also several in the left, all recent, and near the cortical substance. They were apparently owing to obstruction of the veins. Both corpora striata were filled with minute dark red points as in capillary apoplexy, and there were several in other parts of the brain.

Dr. Cabot also alluded to the circumstance that the effusions were all vertical in direction, being not more than from one half to three quarters of an inch in diameter.

Dr. Ellis stated, in reply to Dr. Jackson, that there had been no phlebitis, although the coagula had evidently undergone a change, and resembled an old formation.

In reply to Dr. Morland, Dr. Cabot also said that the patient had had delirium tremens.

Oct. 26th.—*Apoplexy.* In connection with the foregoing, Dr. Slade reported the following case. The patient was a gentleman, 70 years old, of spare figure and medium height. On the 4th of August, while engaged in his counting room, he suddenly fell to the floor, and was insensible when Dr. S. saw him, twenty minutes after. He had had a similar attack six months before, terminating in a few hours' illness. On the morning of the present attack he complained of slight headache, and was somewhat incoherent.

When Dr. S. saw him, the pulse was full, the pupils were contracted, and the limbs motionless, but not rigid. Cold was ordered to the head, sinapisms to the feet, and in a few minutes he got up and sat in a chair. Soon after, however, another paroxysm came on, and notwithstanding he was bled to the amount of from twelve to sixteen ounces, he remained insensible for forty-eight hours. He was carried to the Hospital on the following day, where he remained a fortnight. He recovered his consciousness on the day after, since which

he has been gradually improving; the mind, however, continues enfeebled.

Dr. Cabot remarked that this case was interesting from its striking resemblance, in some respects, to the case reported by him: the patient having epileptiform convulsions, while the general condition was apoplectic.

Oct. 26th.—*Operation for Internal Piles with the Ecraseur.* Dr. Coale mentioned the case. Accompanying the piles, was a prolapsus of the rectum. The attendant mentioned that the patient had lost, on the day before, half a teacupful of blood. Dr. C. had previously tried the ligature, but ineffectually. The patient was etherized, and the ecraseur applied. In six minutes, the tumor was removed, the hæmorrhage not exceeding half a teaspoonful. Cold water dressings were applied, and in the afternoon of the same day the patient was comfortable. There was no sloughing; the surface of the wound became covered with healthy pus, and in one week cicatrization was complete. No pain was experienced at any time. The disease had existed for more than a year.

Oct. 26th.—*Siliceous Calculus from the Urethra of an Ox.*—The specimen was exhibited by Dr. Bacon, having been presented to the Society by Dr. Kneeland, who obtained it near Lake Superior.

Dr. B. remarked that externally it resembled a mulberry calculus, but proved, on analysis, to be composed of silica, together with carbonate and phosphate of lime.

This calculus was found about ten inches from the meatus in the penis of a large and apparently healthy ox. It caused a complete retention of urine for three or four days, accompanied by severe pain and straining in the animal. The appetite was good. The bladder was evidently much swollen. The animal was treated in the usual way by turpentine, nitre and bougies, but without avail. He was finally killed, and the bladder was found distended with a very large quantity of bloody urine; the penis behind the calculus was also much distended.

Oct. 26th.—*Excessive Nausea during Pregnancy relieved by Cauterizing the Cervix Uteri.*—Case reported by Dr. Parks.

Dr. Parks remarked that he gave the following abstract in consequence of a somewhat similar case reported by Dr. Churchill, in the *Dublin Quarterly* for August last, and which was stated to be, so far as Dr. C. knew, the first instance in which the nausea of pregnancy had been treated by applications to the cervix uteri. Dr. Churchill's case, however, occurred in November or December; that now reported, in January, 1856, and was read at a meeting of the Society for Medical Observation, before the publication of Dr. C.'s case.

Jan. 17th, 1856, Mrs. ——, aged about 27, consulted Dr. P. for excessive nausea during pregnancy. She was rather a delicate woman, though active and energetic. At one time, since marriage, she had uterine symptoms, which were referred to inflammation of the uterus by the practitioner, under whose care she was, and who treated the patient locally, with the aid of the speculum. The result was successful, so far, at least, as the symptoms were concerned. In other

respects she had been well, till the occurrence of a miscarriage, which took place a year or more since, she says, from some accidental cause.

The patient had not menstruated for three months, and had begun to enlarge as if from pregnancy. She had also, for a considerable time, been troubled with nausea, which had become almost constant, and so troublesome as to lead her to seek advice in relation to it. On examination with the speculum, an abrasion was found—marked, but not severe—at the *os tincæ*, which was cauterized with nitrate of silver. Two days after, the patient stated that the nausea was greatly alleviated immediately after the operation, and on the day following had almost entirely ceased, now only existing to a slight extent. A mixture containing lavender, gentian and ginger, was prescribed. The patient went her full time, comfortably, and had a safe delivery.

Dr. Storer mentioned two cases of this affection, which were relieved by the application to the cervix uteri of the saturated tincture of iodine. He had also tried the tincture of iodine internally in doses of three drops, and found it even more effectual than creosote.

Nov. 9th.—*Chronic Ulceration of the Duodenum in a Child five years of age, terminating in Fatal Hæmorrhage; Pleurisy with Effusion.* Case reported by Dr. Gray.

Dr. G. was called to a child, five years of age, in convulsions, on Sunday, Oct. 25th. The fit lasted about an hour, and was followed by prostration, slight delirium, occasional vomiting, contraction of the pupils, closing of the thumb upon the palms; these, without other marked symptoms, continuing for forty hours. At the morning visit on the 27th, some difficulty of breathing was noticed, attended with slight dulness of respiration, and less resonance on percussion on the right side. 28th.—Respirations 60 in the minute, with some cough. Marked flatness, with absence of respiration in the lower half of the right lung.

The case was now diagnosticated as pleurisy, with effusion. Had the dyspnœa been less urgent, more attention would have been given to certain signs suggestive of typhoid fever, such as occasional wandering, stupor, and great meteorism. There was no diarrhœa. The child improved gradually, the respiration coming down from 60 to 38 per minute, and the pulse from 180 to 120, or a little less. On the first of November, one week from its attack, a marked paleness suggested the thought of hæmorrhage, but the parents assured Dr. G. no blood had been seen. The child was in other respects about as well as on the day before. The pulse was somewhat accelerated, but the respiration better. Before three hours had elapsed, the child was dead. In moving the body, blood escaped from the mouth and anus.

*Sectio Cadaveris*, by Dr. Ellis.—The brain was not examined.

The right pleural cavity contained considerable thick purulent fluid, by which the lung was somewhat compressed.

The liver was of a light yellow color, and very fatty.

A large amount of blood was found in the stomach, and throughout the intestinal canal.

In the duodenum, a short distance below the pyloric valve, were two ulcers—one perhaps two thirds of an inch in its longest diameter, the other considerably smaller. The first was of a somewhat irregular oblong shape, with a smooth, rounded margin. Its base was mostly

formed by the pancreas, but at one extremity it must have approached very near the peritoneal coat. No vessel was seen from which the hæmorrhage had proceeded. The other ulcer had extended as far as the submucous cellular coat, and had a smooth margin and base. There was no discoloration of the mucous membrane around either.

The solitary glands and Peyer's patches were reddened and thickened, but nowhere ulcerated, so that the blood undoubtedly came from the ulcer in the duodenum. The change extended as high up as a point three feet from the pylorus.

The other organs were not remarkable.

Nov. 9th.—*Cancer of the Uterus; Sacs containing Albuminous Fluid, involving the Psoas Muscle.* Case reported by Dr. Ayer.

Mrs. H., aged 32 years, intelligent, of lymphatic diathesis, anæmic, and emaciated in appearance, came under my care the 2d of July last. She had arrived a few days before in a steamer from Baltimore, and bore the fatigue of the voyage without particular inconvenience. It was difficult for her to walk in the street without support, and she complained of the jar of a carriage. The following is the history of her case:

Born in Boston, for the last eight years she had resided at New York, and in Southern cities—spending a portion of every summer with friends at the North. In early life her health was good, but for several years past, she had suffered much from general debility and leucorrhœa. For the last two years her health had materially declined, and she had felt a great degree of lassitude. About a year before her arrival, her case was examined by several physicians, all of whom pronounced it ulceration of the mouth of the womb. A variety of topical applications, such as nitrate of silver and caustic potash, from which she suffered acutely, were freely employed: general remedies also were freely ordered. At times her medical attendants believed that the ulceration diminished; but no reliable progress was made toward a cure. Her strength, in the meanwhile, gradually failed, and her sufferings increased.

In September, 1856, after a long walk, and in a state of perspiration, she took a cold bath—a practice she was in the habit of indulging in, without special care, and in all states of the weather. Immediately after this bath she had a violent chill, and thereafter began to feel frequent pains extending from the left hip downward as far as the knee. Pain in the lumbar region was also experienced. Painful and scanty micturition supervened, which continued more or less to the present time.

Physicians in other cities, subsequently consulted by her, diagnosticated her case as one of ulceration, and some of them apprehended cancerous degeneration.

The pains of the hip and thigh gradually increased in frequency and severity. These were considered to be neuralgic, and growing out of the uterine affection. Early in the past summer she began to experience a degree of difficulty in walking, and at times exercise caused considerable pain of the left leg, attended by slight contraction of the tendons under the knee.

During this period, there had been repeated hæmorrhages from the womb; and two or three times it was profuse. There was a constant

discharge from the vagina—usually thin and watery—and always offensive. But little purulent matter had appeared. Morphia, in doses of a quarter to half a grain, was taken to alleviate pain, and procure sleep. Her nights became more wakeful and the general symptoms more serious. Thus the case wore on, and she determined to visit her friends in this city.

On examination, Dr. A. found her pale, with lax muscular fibre, the lines of her face indicating suffering, pulse, 80 to 90 per minute, variable and irritable, and an impoverished circulation. There was no apparent swelling of the abdomen, hip or thigh. The appetite was generally good, though capricious. The bowels were costive, and rarely moved except by cathartics: they had been for a long time in this torpid condition. Urine scanty, light-colored, and micturition painful. Pain of the loins was complained of, together with moderate night sweats.

A speculum, of the usual size, was passed without difficulty. The vagina and external organs appeared perfectly healthy. The anterior lip of the os uteri was very tumid, and presented an extensive ulcer, larger in circumference than a dime, lozenge-shaped, with its edges well defined, and prominent. There was, otherwise, nothing particularly noticeable in its appearance. Its color was light brown; no blood or pus was discovered—only a thin watery fluid. The diseased parts were rather tender, though the examination was well borne. A second examination, a few days after, confirmed the first appearances, except that the ulcer had rather increased. Injections with chloride of soda, alternated with astringents, were ordered, with morphia to allay pain, and sulphate of quinia and citrate of iron with porter, as tonics. In the third week of Dr. A.'s attendance, Dr. Channing saw the patient in consultation. The ulcer continued about the same as at the last inspection, and the uterus had not the hardness or feel of scirrhus. The hip and leg had become more painful, and the outside of the thigh—especially about six inches above the knee, and over an extent as large as the hand—was particularly sensitive. The upper portion of the thigh, on the inside, had become slightly puffy, but no induration, or tenderness on pressure, or fluctuation, were perceptible. The veins of the limb were neither hard nor corded, nor painful to the touch. Considerable pain began to be experienced in moving the right limb. The leg was drawn up, or bent, and usually laid on a pillow, as the most comfortable position. This contraction was well-marked, and became permanent.

A variety of anodyne liniments were ordered to the limb, and morphia was chiefly relied upon to induce sleep, given in half-grain doses, and frequently repeated. The extract of belladonna, cicuta, valerianate of morphia, hyoscyamus and other sedatives, were employed with but partial relief.

Toward the last of July the patient had a severe diarrhœa, which exhausted, to a great degree, her strength. Accompanying this attack, there was aphthous mouth, which troubled her through her illness.

In August, Dr. Channing again saw the patient, but the leg had become so extremely tender, and it was so difficult to move her, that an examination with the speculum was deemed impracticable. Attention was withdrawn from the uterus to the sufferings in the limb, which af-

terward claimed the entire treatment. No inspection of the ulcer was made after the fourth week. The discharge continued about the same, with a few drops of blood occasionally intermixed.

In September, the entire left leg had become very much swollen—the foot and ankle pitting on pressure. The tender spot above the knee gradually became less painful, and the whole leg became more sensitive. Sulphate of morphia, in grain doses, was found inadequate to procure much sleep, and sulphuric ether was inhaled. As the sufferings augmented, the quantity employed was increased, so that six or seven weeks before death the patient inhaled sometimes three pounds in twenty-four hours. This great quantity was not required all the time—but frequently was for three or four days in succession, when the pain would partially subside, and a less quantity, with morphia, would suffice. The pulse was small—averaging 100 per minute.

The alvine discharges were reported healthy, and never offensive like the vaginal. No examination, per anum, was ever made.

For the last few weeks Mrs. H. could take but little nourishment, or stimulants. The vital forces at last yielded to her painful and anomalous affection, and she died October 31st.

Ulceration was known to exist, and cancerous degeneration was suspected. Obstruction of the veins, with pressure on the nerves of the leg, were supposed to exist, from some unknown cause.

To the last, neither inequality or tenderness of the abdomen, nor symptoms of peritoneal inflammation, nor fluctuation in the groin or elsewhere, were detected. The intellect continued clear throughout.

It should have been mentioned that for the last few weeks pain was complained of in the right hip, extending down the thigh, similar to that of the left, but far less severe, and the entire limb became moderately œdematous, with pitting at the ankle and foot.

The post-mortem examination rendered comparatively clear a morbid condition altogether unsuspected during life.

*Sectio-Cadaveris*, by Dr. Ellis. On examination, it was seen that the greater part or the whole of the neck of the uterus had been destroyed. The lower portion of the body was converted into a firm bluish-white cancerous growth, which gradually blended with the healthy tissue above. The upper part of the vagina and the adjacent structures were extensively involved in the same disease, which presented a different appearance, however, from that found in the uterus. It was quite soft, finely lobulated, in parts of a dark-brown or blackish color, and very offensive. A portion of the anterior wall of the rectum, more than an inch in diameter, had been destroyed. The mucous membrane of the intestine was, for some distance, of a bright-red color. At the bottom of the cul de sac, behind the uterus, the disease could be felt through a large opening in the peritoneum. There was no peritonitis.

In the left lumbar region was found a large sac, extending from the lower rib to a point three inches below Poupart's ligament. It apparently occupied the psoas muscle and others in the neighborhood. The anterior parietes were three or four lines in thickness. It contained about four pints of slightly-yellowish, viscous, albuminous fluid, like that found in the peritoneal cavity in ascites, and some ovarian cysts. Much of the interior was coated with an irregular, yellowish-white layer several lines in thickness, resembling firm lymph. Por-

tions of the muscular substance forming the walls, appeared to be in immediate contact with the fluid, and had a somewhat macerated look. The crural nerve passed through the upper part of the sac, partly imbedded in muscle; then lay upon the outside, beneath the anterior superior spinous process of the ilium. The external iliac artery passed through the lower part of the cavity, isolated from the tissues by which it is usually supported. On being opened it was found perfectly healthy. The cavity of the vein was obliterated. In the right psoas muscle was a similar cavity containing about four ounces of the same fluid.

No disease of the spine was found, nor any connection with that of the uterus.

The thoracic organs were not examined. The others presented no appearances worthy of note.

The most remarkable feature in the case was the existence of the two sacs filled with albuminous fluid, the disease having probably commenced on the psoas muscle; for on the right side this alone was affected. No dead bone was found, and, indeed, the appearance of the fluid and the interior of the cavities was such as to exclude the idea of an abscess from any cause.

Nov. 23d.—*Perforation at the Umbilicus; Discharge of a kernel of Hulled Corn.* The following account of the case, furnished by Dr. Patch, was read by Dr. Storer.

"W. H. D. called on me on Tuesday morning, May 26th, and complained of a slight discharge of matter at the navel, which had troubled him about three weeks. He said he thought it was caused by his flannel. I examined the part carefully—more so than I should have done, perhaps, in consequence of having recently had a case of perforation at that part under my care. No redness, heat, hardness, swelling or tenderness was to be detected there, or in any part of the abdomen. He said, at the same time kneading his bowels violently, that nothing was the matter with him except the trouble from the discharge.

"Considering it only an irritation, I ordered the part to be carefully cleansed, and an ointment containing tannin and morphia to be applied, at the same time advising quiet, with a light diet, and great caution, fearful of what might occur. He told me he should return to his business, that of a restorateur, as he had no one on whom he could depend. He kept at his work all day without trouble. After retiring and sleeping easily, he was awakened, about midnight, by an uneasy feeling at the navel. He arose and applied the ointment. While applying it he nearly fainted, as he said, from the effect of the application. His wife helped him back to bed, he being unable to return alone. He remained in bed all day on Wednesday.

"On Thursday, I was called to him and found him in bed, complaining of pain in the abdomen, on motion, mostly on the right side, and around the navel, which he said he thought was caused by the ointment. I found, on examination, some swelling, with tenderness and hardness, around the navel. Pulse 72. Skin natural. Tongue slightly furred. No appetite or thirst. He had had no operation from the bowels since Tuesday. The urine was rather high colored. A cataplasm was ordered to the part.

"On Friday, I found him very comfortable, without pain. He had rested well. On removing the cataplasm to examine the navel, I observed a white substance, apparently protruding from the part. (There was a cloth between the cataplasm and the abdomen.) I attempted to remove this substance, at the same time remarking to his wife that she had put a bean under the cloth. She said she had not. On moving the substance, which so closely resembled a bean, a gush of fæcal matter at once followed. On close examination this proved to be a kernel of hulled corn. Without making this known, I inquired if he had eaten anything of the kind of late; at first he said no, but his wife reminded him of having eaten hulled corn for dinner about three weeks before, but not since. His dinner at that time caused him no trouble that he could remember. His bowels had, during this time, been regular, and when I told him what I had taken from the navel, and the danger he was in, he was much surprised as well as alarmed.

"I kept him quiet, ordered light diet, and gave mild laxatives, as his bowels were inclined to be costive, and when in that state I found the discharge at the navel increased. Kept up gentle pressure on the part. In about a fortnight, he began to sit up, contrary to my wishes. In less than three weeks he called on me at my office. The discharge at this time was very slight, but decidedly fæcal in character.

"Saw him June 25th, and examined the part carefully and found no discharge or trouble of any kind. I recommended great care. Saw him again, July 22d, and, from the examination, I should not have known that he had ever had any trouble at the navel. He said he felt as well as he ever had, and on the whole thought he was better, on account of his being obliged to live so carefully. He continues well to the present time (October)."

Nov. 23d.—*Imperforate Anus and absence of the Rectum.*—Case reported by Dr. G. H. Gay, who also presented the accompanying paper. The child was first seen Nov. 14th, 1857, about sixty hours after birth. By the mother's account, it had passed nothing from its bowels, and only a slight quantity of urine from the penis, and was in nearly constant distress, with occasional nausea and the vomiting of a greenish fluid. It was also restless and crying most of the time.

On examination, there was the brownish discoloration and puckering of the skin where the anus ought to be, but no opening could be found. On pressure with the finger, active contraction and retraction of the skin followed, indicating a strong muscular power. A moderately firm, bluish membrame, completely closed up the anal aperture. During the longest straining, there was no forcing down nor protrusion of this membrane. The abdomen was swollen, but apparently not tender to the touch. The skin of the face and upper extremities was yellowish.

A probe passed through the penis into the bladder could not be felt in the perinæum.

The parents urged an operation.

*Operation.*—The membrane being freely divided, the point of the little finger was passed through the opening, but no obstruction was met with, no cul de sac could be felt, nor was there any impression on the finger, during the most violent straining. While the finger was in the opening there was strong contraction upon it. The finger pass-

ed easily to the top of the sacrum. A probe was then passed into the bladder, and traced to the upper part of the sacrum with nothing intervening but the thin coat of the bladder. This was apparently closely attached to the bone, as nothing would pass between them. The bladder was not distended. As far as the fore finger could reach, nothing was felt but the probe in the bladder, and the sacrum.

Under the circumstances, nothing further was attempted. The parents would not permit an operation in the iliac or lumbar region.

During the operation, some good-colored urine was passed. All the symptoms that were present before the operation, now increased, together with fæcal vomiting, hiccough, and great yellowness of the skin. The child died about two days and a half from the operation. No autopsy was permitted.

Before death, there was evidently meconium mixed with the urine, from the appearance on the cloths. The mother said that there was the same greenish color, though not so marked, once before the operation. As there was meconium evidently mixed with the urine, the intestine, whether it was the lower part of the colon or the commencement of the rectum, in all probability terminated at, and communicated with, the upper posterior part of the bladder, and was out of the reach of any operative procedure at that point.

This case, coming on so soon after the recent interesting specimens and discussion before the Society, respecting these anal and intestinal malformations, and differing from the instances most commonly met with in the greater deficiency of the intestine, and the impossibility of reaching it through the usual channel, induced me to examine some of the recorded cases of Ruysch, Hildanus, Morgagni, Heister, Petit, Van Swieten, Littre, Dubois, and others of the older surgeons, together with those of our own day, and give the characteristic peculiarity of each case and its termination.

In order to make a clear arrangement, the following division has been made:—*Imperforate Anus; Imperforate Rectum; Imperforate Anus, with an abnormal opening of the Rectum; Anus natural, and the Rectum with an abnormal opening; Imperforate Anus and Rectum; Imperforate Anus, with an absence of the Rectum; Imperforate Anus, with an absence of the Rectum and Colon (large intestine); Abnormal Anus.*

1st. *Imperforate Anus.*—In this congenital defect the anal opening is closed either by a thin membrane, or by one that is thick and firm. Here the anus is strictly closed and rendered imperforate by a membranous septum.

In other forms there is really no anus, nor any trace to indicate where it ought to be. The scrotal raphé is continued back to the coccyx, and the skin is thicker and more condensed than is natural in that region. This is much more common than the membranous variety. Though called an imperforate anus, there is strictly no anus—an absence of an anus.

In some cases the raphé does not extend so far back. This division of the malformation seems to preponderate in the male sex.

2d. *Imperforate Rectum.*—Here the intestine terminates in a pouch or cul de sac, at variable distances from the anus, usually from one half of an inch to an inch and a half. Sometimes it terminates higher up, with a hard, firm, vermiform appendage, or twisted like a cord, with compact, indurated cellular tissue around it.

Sometimes there is a thin or thick, annular, membranous septum a short distance from the anus, the intestine above and below it being perfectly natural. The septum sometimes has been of the consistency of horn.

Sometimes the walls of the intestine touch, and are, as it were, glued or grown together, but natural above and below it.

3d. *Imperforate Anus, with an Abnormal Opening of the Rectum.*—In these cases, besides the imperforation or absence of an anus, the rectum opens externally by a canal in the perinæum, or at various points beneath the urethra as far up as the frænum præputii, or directly into the urethra just in front of the verumontanum. This last is the most commonly met with. It rarely opens or communicates with the bladder. When it does, it is at a point between the openings of the ureters, or at the upper posterior surface. Instead of a direct opening into the urethra or bladder, there is sometimes a narrow, short canal, connecting the two, as Dr. Jackson remarks, like the ductus arteriosus.

In females, the rectum opens or communicates with the vagina by a small or large opening; it rarely opens into the bladder.

4th. *Anus natural, with an abnormal opening of the Rectum.*—Instances of this variety are very uncommon. One is mentioned as opening into the vagina, another into the bladder, another into the urethra.

5th. *Imperforate Anus and Rectum.*—In this variety both the anus and rectum are imperforate. There is no outlet for the meconium. A case is recorded of this particular malformation, where the child was three months old before an operation was performed, and two years afterward had natural evacuations and perfect control over them.

6th *Imperforate Anus, with an Absence of the Rectum.*—In these cases the end of the colon terminates in a cul de sac or in a ligamentous substance, floating in the pelvis or in the abdominal cavity, or at times adherent. In this malformation death soon follows where no operation is attempted.

7th. *Imperforate Anus, with an Absence of the Rectum and Colon, and with an Abnormal Anus.*—In these cases, the abnormal anus may be at the umbilicus, the left iliac fossa, the lower part of the abdomen just above the symphysis pubis, or in other extraordinary regions.

In *Bushe* on the *Diseases of the Rectum, &c.*, he refers, in relation to an abnormal anus, to the case of Dinmore, of an infant in whom the inferior portion of the abdomen was badly developed, while the intestine turned upward and opened under the border of the right scapula; a still more extraordinary case is referred to of Bils, in which the intestine mounted from the pelvis, through the chest into the neck, and opened on the face by a very small orifice.

Imperforate anus. Cases 5, 6, 8, 29, 30, 34, 37, 38, 52, 53, 54, 55, 69, 73, 83, 97.

Imperforate rectum. Cases 1, 2, 3, 17, 23, 40, 43, 44, 48, 57, 62, 66, 61, 86, 91, 92, 93, 94, 95, 96, 98, 99, 100, 101, 103, 104.

Imperforate anus, with an abnormal opening of the rectum. Cases 4, 9, 10, 12, 13, 14, 15, 16, 39, 47, 51, 58, 63, 68, 74, 78, 79, 80, 81, 82, 85, 87, 88, 90.

Anus natural, and rectum with an abnormal opening. Cases 11, 42, 102.

Imperforate anus and rectum. Cases 7, 18, 28, 32, 33, 35, 36, 41, 45, 46, 49, 50, 56, 59, 64, 65, 67, 70, 71, 72, 75, 76, 77, 84, 88.

Imperforate anus, with an absence of the rectum. Cases 19, 20, 21, 22, 24, 25, 31, 60.

Imperforate anus, with an absence of the rectum and colon (large intestine). Cases 26, 27.

Abnormal anus. Cases 24, 25, 26, 27.

| | No. of Cases. | Operation. | No Op'n. | Cure. | Deaths. No Op'n. | Deaths. Operation. |
|---|---|---|---|---|---|---|
| Imperforate anus, - - - - - - | 16 | 16 | | 2 | | 14 |
| Imperforate rectum, - - - - - - | 26 | 19 | 7 | 4 | 7 | 15 |
| Imp. anus—abnormal opening of rectum, - | 24 | 14 | 10 | 9 | 4 | 5 |
| Anus natural—rectum with abnormal opening, | 3 | 1 | 2 | 1 | 2 | |
| Imperforate anus and rectum, - - - | 25 | 23 | 2 | 8 | 2 | 15 |
| Imperforate anus, with an absence of rectum, | 8 | 4 | 4 | 1 | 4 | 3 |
| Imperforate anus—absence of rectum & colon, | 2 | | 2 | | 2 | |
| Total, - - - - - - - | 104 | 77 | 27 | 25 | 21 | 52 |

Total operations, 77 ; cures, 25 ; deaths, 52.

In making up the result, it will be, perhaps, more proper to place the five cases (9, 37, 38, 73, 74) under a separate head of "partial success," and take them from the number of deaths. Thus, cures, 25 ; partial success, 5 ; deaths, 47.

In the cases of imperforate anus, Cases 29, 30, 83 were operated on for an artificial anus. Among the deaths are placed Cases 37, 38, 73, which though partially successful and affording more or less temporary relief to the patients on account of an operation, still were ultimately unsuccessful.

*Imperforate Anus, with an Abnormal Opening of the Rectum.*—In Case 4, the rectum opened at the root of the penis ; Cases 9, 10, 58, 74, 85, into the urethra ; Case 63, into the bladder ; Cases 68, 78, 79, 80, 81, into the vagina · Case 82, beneath the urethra near the prepuce.

In the cases where there was no operation, Cases 12, 13, 14, 15, 16, 47, all females, lived from 8 years to 100 years. Case 39 died from scrofula, at the age of 17.

Of the successful operations, the rectum opened in one case (63) into the bladder ; in one case (4) into the perinæum ; in three cases (10, 58, 82) into the urethra ; in four cases (78, 79, 80, 81) into the vagina.

Of the deaths, one case (39) died from scrofula, at the age of 17 ; in three cases (51, 87, 89) there was no operation ; of the remaining five cases (9, 68, 74, 85, 90) three only (68, 85, 90) may be said to have died from the immediate effects of the operation ; while cases 9 and 74 were attended with partial success and temporary relief, though ultimately terminating in death, and included among the deaths.

In the cases where there was an abnormal opening of the rectum (11, 42, 102), while the anus was natural, one of them (42) was operated on successfully by Amussat ; in the others (11, 102) no operation was had.

Among the cases operated upon for imperforate anus and rectum, one (49) was successful in the right iliac fossa ; the other (84) was unsuccessful in the left iliac fossa.

In the cases of imperforate anus, with an absence of the rectum, there was no operation in four of them (19, 20, 24, 25), 24 and 25 having an abnormal anus at the umbilicus, and all of them were fatal. In the cases operated upon (21, 22, 60, 31), three (21, 22, 60) were

unsuccessful; and one (31), Duret's case, was successful, after performing Littre's operation in the left iliac region.

1. (Petit.)—*Imperforate Rectum.* A very thin membrane an inch from the anus. The anus was natural.

The child had an operation, lived two months, and did not die of the operation, nor of anal disease. The sphincter was sound.

2. (Engerran.)—*Imperforate Rectum.* The rectum was drawn up like the umbilicus, the distance from the anus not being mentioned. Had an operation when four days old, and died at the end of a month.

3. (Troien).—*Imperforate Rectum.* A female child. About a finger's breadth from the anus, was a membrane, ten lines thick, of almost the consistency of horn.

*Operation.* Death in three days.

4. (Hildanus.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* Membrane strong and hard, without any trace of an anus. There was a small opening at the root of the penis, of the size of a pea.

*Operation* on the 6th day. Cure.

5. (Durr.)—*Imperforate Anus.* Membrane from a line commencing at a point where the anus ought to be, and extending to the root of the penis, where there was an opening of the size of a pea, from which meconium and wind escaped.

*Operation.* The membrane was cut through, two months after birth, with a lancet, and a perfect cure was the result.

6. (Petit.)—*Imperforate Anus.* There was no trace of an anus.

*Operation* on the third day. Meconium passed. Died in convulsions.

7. (Petit.)—*Imperforate Anus and Rectum. Operation.* The septum was divided, and the opening dilated with the finger, but no rectum was found. At the end of three hours, a soft, black tumor, of the size of a prune, appeared, and entirely concealed the incision that had been made. This tumor was punctured, and the child was relieved, but died eight days afterward.

*Autopsy.* On examination, it was found to be the posterior part of the upper portion of the rectum forced down by the efforts of the patient. Between the sphincter and the portion forced down was a hard cord, into which a very fine-pointed needle could hardly be introduced.

8. (Petit.)—*Imperforate Anus. Operation.* First, with a lancet, without relief, then with a trocar, with a discharge of fæces. Died the next day.

9. (Flajani.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* When seen, at the age of four months, there was no trace of an anus, and the fæces passed through the urethra. In other respects the child was pretty well. The abdomen swelled, and there was much suffering when there was a desire to have a dejection.

*Operation.* At the age of seven months, with a trocar, in a spot where the anus ought to be. Nothing came but drops of blood. A deeper puncture was made without success. One hour after, fæces came by the urethra.

Patient lived to the age of eighteen months, suffering when passing fæces, and died in convulsions, with the abdomen enormously distended.

*Autopsy.* The rectum, three inches long, was found terminating in a canal four inches long, which passed beneath the prostate and opened

into the membranous portion of the urethra. Here it was blocked up by a cherry-stone.

10. (Lusitanus.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* Anus closed by a membrane. Fæces were passed by the urethra for three months.

*Operation*, when three months old. Membrane was incised, a cure being the result.

11. (Morgagni.)—*Rectum with an Abnormal Opening.* Fæces were passed by the urethra, mixed with urine, in a female. There is no mention of any operation.

12. (De Jussieu.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* The child was a female, and lived to the age of seven or eight years, and always discharged the fæces by the vagina. There was no operation.

13. (Benivenius.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* The fæces came, a few days after birth, by the vagina, and continued so up to the time of her death, at the age of sixteen. Died with the most violent colic pains. There was no operation.

14. (Van Swieten.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* Fæces by the vagina, in a marriageable female. There was no operation.

15. (Haesbart.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* Patient was twenty years old, and had always passed fæces by the vagina. Enjoyed good health. There was no operation.

16. (Mercuriali.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* According to Morgagni, a Jewess, named Teutonicus, passed all her fæces by the vagina, and lived to the age of *one hundred* years. There was no operation.

17. (Schenk.)—*Imperforate Rectum.* Anus open and natural.

*Operation* by incision. Injections could not enter the intestine. Death.

*Autopsy.* The walls of the rectum were found glued together at two points, and closed in two other points by two membranes.

18. (Schultz.) *Imperforate Anus and Rectum. Operation.* Nothing came but blood. Death the next day.

*Autopsy.* The rectum had no cavity for a distance of nine fingers' breadth, and was twisted like a cord down to the point where the anus ought to be.

19. (Ruysch.)—*Imperforate Anus and Absence of the Rectum.* There was no trace whatever of either anus or rectum. There was no operation. Death.

20. (Ruysch.)—*Imperforate Anus and Absence of the Rectum.* Case similar to No. 19.

21. (Binninger.)—*Imperforate Anus and Absence of the Rectum. Operation.* Death on the next day.

*Autopsy.* There was no rectum whatever. The end of the colon was contracted and closed as if tied with a cord, and degenerated into a short ligamentous substance.

22. (Jamieson.)—*Imperforate Anus and Absence of the Rectum. Operation* by incision, and the finger was introduced. Nothing was felt. The trocar was then used, and nothing came but blood. Death on the next day.

*Autopsy.* The entire rectum was wanting. The colon was closed

and filled with meconium, and was floating in the pelvis. All the other parts were in a natural condition.

23. (WAGNER.)—*Imperforate Rectum.* An ordinary probe could be passed to the depth of just an inch and a half, but no farther. Child died on the tenth day from birth. There was no operation.

*Autopsy.* There were two kinds of rectum—one, very short, terminating at the anus; the other, forming the continuity of the intestinal canal, was very full of fæces and wind, and was reflected upon the superior part of the sacrum, to which it was strongly adherent.

24. (MERY.)—*Imperforate Anus and Absence of the Rectum.* The colon terminated in a nipple-like projection at the umbilicus, in an opening a line and a half in diameter. Fæces came through this opening. There was no operation. Death.

25. (MERY.)—*Imperforate Anus and Absence of the Rectum.* Precisely similar to Case No. 24. Male twins.

26. (PETIT.)—*Imperforate Anus and Absence of the Rectum and Colon.* The end of the ilium terminated at the left side of the bas ventre. There was no rectum, nor colon, and only a portion of the cœcum.

27. (LITTRE.)—*Imperforate Anus and Absence of the Rectum and Colon.* The ilium opened into a fleshy pocket of the size of a hen's egg, from the inferior extremity of which was a tube, three lines long and two thick, terminating in a round opening externally, a line and a half in diameter, just above the symphysis pubis. This opening served as an anus. There was no operation. Death.

28. (LITTRE.)—*Imperforate Anus and Rectum.* Death on the sixth day.

*Autopsy.* The rectum was found divided in two parts.

29. (DUBOIS.)—*Imperforate Anus.* There was no appearance of an anus.

*Operation*, on the third day, for artificial anus (Littre's) in the left lumbar region. Death, ten days afterward.

*Autopsy.* The borders of the wound in the intestine were consolidated with the walls of the abdominal wound.

30. (DESAULT.)—*Imperforate Anus. Operation* (Littre's) forty-eight hours from birth. Death four days afterward.

31. (DURET.)—*Imperforate Anus and Absence of the Rectum.* There was no trace of an anus. There was no swelling there in the efforts made by the child to have an evacuation. The scrotum was divided into two parts along the median line, with a testicle in each. In the perinæum was the glans, with its meatus, from which the urine passed freely.

*Operation*, thirty-four hours from birth, first with a bistoury. A sound was then introduced, but no rectum was felt. Twenty-four hours afterward, the abdomen was much swollen, there were frequent vomitings and cold extremities. When the child was three days old, an incision was made into the abominal cavity above the iliac region, in the situation where the sigmoid flexure of the colon formed a tumor. This portion of the intestine was drawn out by the finger, and a ligature was passed through the meso-colon to retain it out of the abdomen. An incision was then made into it an inch and a half long. The meconium escaped in abundance. The next day, the patient was comfortable. On the fifth day, the sutures uniting the intestine to the abdominal wall were removed. On the sixth day, the opening of the

intestine, an inch long, gave passage to the prolapsed mucous membrane. The next, the patient seemed to be cured, and had no further need of the surgeon. Twelve years afterward, the patient was alive with his artificial anus.

32. (Heister.)—*Imperforate Anus and Rectum.* The rectum was closed to the upper part of the sacrum. Operation. Death.

33. (Heister.)—*Imperforate Anus and Rectum.* Similar to Case No. 32. Death.

34. (Ruysch.)—*Imperforate Anus.* The anus was closed by a thin membrane. On the fifth day there was a spontaneous rupture, and death followed a short time afterward.

35. (Petrus Adriani.) *Imperforate Anus and Rectum. Operation* with the trocar, which penetrated to the depth of the little finger. Meconium came. Death.

36. (Petrus Adriani.) *Imperforate Anus and Rectum.* Similar to Case No. 35. Death.

37. (Howship.) *Imperforate Anus. Operation* when two days old, with a lancet. Meconium came, black and offensive. It oozed away. There was apparently no sphincter. When six months old, was taken to the surgeon, but nothing was done. When a year and a half old, the abdomen was very large, but without any particular inconvenience. The appetite was excessive and unnatural. Picked up and ate everything about him, bits of stick, broom, straws, plum or fruit stones, &c. Ate heartily and never seemed to be satisfied. Was seen by several medical gentlemen, none of whom were satisfied as to the nature of the complaint. There was evidently some abdominal tumor. When two years old, was still suckling. About this time had uneasiness and pain in the belly, which increased so that, in the night, it would hang over the edge of the cradle with his hands on the floor, and the abdomen pressing upon the edge of the cradle. Death six days after the commencement of the sickness.

*Autopsy.* On opening the abdomen, a soft, white elastic tumor was found, which proved to be the rectum. The stomach and small intestines were healthy. The large intestine was double its natural size. Just where the rectum commences, the coats of the intestine were suddenly distended into a large oval pouch or bag, large enough to contain three pints of fluid. This bag contained a large quantity of fruit stones, with bits of stick, straws and dirt, together with a large mass of fluid, dark fæcal matter, with which the whole of the colon was more or less filled, as well as the large sac which contained the stones. The enlargement of the rectum was quite down to the anus, which was so confined as to allow with difficulty a medium-sized bougie to be passed, and consequently only the thinnest fæcal matter.

38. (Merriman.)—*Imperforate Anus.* The abdomen was much enlarged.

*Operation* with a trocar. The meconium came first, then fæcal matter. The mother would not allow the further treatment by bougies. The patient went on tolerably well for six months, and the abdomen was constantly enlarging. Death soon ensued. No autopsy permitted.

39. (Howship.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* At the request of Dr. Merriman, examined the body of a young woman, aged 17, who died from scrofulous disease, and who

from birth had evacuated her stools by the vagina, although there was no want of the power of retention.

*Autopsy.* There was an external mark in the situation of the anus, but no opening. On opening the abdomen, the rectum was traced down to the posterior part of the vagina, to which it was adherent. On removing the vagina and laying it open, the rectum was found to open upon its surface by a very vascular and prominent sort of papilla, within the vagina, near the os externum.

40. (John Wayte.) *Imperforate Rectum.* There was a complete obstruction about an inch from the anus, apparently a membranous septum.

*Operation,* by a pointed probe, trocar and bougie. Meconium and fæces escaped. In a week, the opening closed. A new puncture was made, and the opening dilated with a bougie. As the tendency to contraction was strong and constant, repeated operations were found necessary with the trocar and bougies. Was going on well, the opening allowing a middle-sized rectum-bougie, when one day the bougie was found to produce a grating sensation, and was scratched on being withdrawn. On further examination, the os coccygis was found carious, which continued to increase till the child's death, at the end of six months.

41. (Roux de Brignolles.)—*Imperforate Anus, Urethra and Rectum.* There was no movement or prominence in the region of the anus after crying. The skin was hard and thick, and without a raphé.

The urethra was closed at the base of the glans, by a thin membrane constituting a sort of hypospadias. The membrane was perforated with a stilette, and the urine voided.

*Operation.* An incision an inch long was made in the line of the raphé. The fibres of the sphincter were seen, their internal borders being in contact and in a straight line, but contracted in a circle, and with considerable force when the infant cried.

The incision was then carried an inch deep toward the coccyx, and ended in a mass of cellular tissue. A bistoury was then thrust upward and backward, and entered a cavity. On withdrawing it, meconium followed. The first phalanx of the index finger reached the bottom of the wound, which was dressed with charpie and ointment. This was kept up for fifteen days. Then granulations sprung up from the edges of the wound, impeding the progress of the fæces, and producing colicky pains. As the anal opening became constricted and obstructed, the stools were less frequent and more difficult, and the urine was followed by fæcal matter. The wound was enlarged toward the coccyx, the bowels were again relieved, and the urine was voided without the fæces. The granulations again obstructed the anus, and fæces again came with the urine. The granulations were checked by the nitrate of silver, and the anus kept open by large-sized bougies till cicatrization. There were no more fæces by the urethra. The border of the anus assumed the plicated appearance of the natural outlet.

42. (Amussat.)—*Anus natural, with the Rectum opening into the Vagina.* Was seen thirty-four hours after birth. No meconium had passed. Water was injected into the anus and returned by the vagina. The abdomen was hard and swollen. A flexible canula penetrated two inches. A sound passed into the vagina, struck the canula introduced

by the anus. The opinion was that the rectum stopped at the depth of two inches, and there communicated with the vagina through an opening or deficiency of the natural septum between the vagina and rectum.

*Operation.* Eight hours were occupied in dilating the anus with prepared sponge. On examining with the finger, the imperforate rectum was judged to be above the sacro-vertebral angle on the left side. An attempt was now made to separate the rectum as much as possible from the surrounding points, so as to bring it down as near as possible to the external wound. What was supposed to be the cul de sac of the rectum was seized and held by hooks, while the dissection was carried on mainly by the finger and occasionally by a slight touch of the bistoury. Being successful in bringing the bowel down to the anus, a large opening was made into it, and after the meconium had passed, several ligatures kept it united to the skin. The parts were kept open by bougies smeared with lard. The result was successful.

43. (Amussat.)—*Imperforate Rectum. Operation.* Death.

44. (Amussat.)—*Imperforate Rectum. Operation.* Death.

45. (Campbell. Medical Repository, Vol. V.; New York. 1802.)—*Imperforate Anus and Rectum.* Female child. The abdomen was much distended, and there was fæcal vomiting.

*Operation* on the third day. A longitudinal incision was made with a lancet, where the anus ought to be, in the direction of the os sacrum. It was then carried deeper, with a scalpel, to a cavity. Meconium flowed freely. A warm bath was given, and then a tallow bougie was passed. This was continued a few days only, with some rhubarb and magnesia. In four months the child was doing well, the operation being in every way successful.

46. (Weymott. London Lancet, Vol. XVIII.)—*Imperforate Anus, Rectum and Vagina.* The child was in great suffering. The abdomen was swollen and tender. There was vomiting and straining.

*Operation* on the second day. A longitudinal incision was made in the direction where the anus ought to be. At two inches from the external opening, penetrated the rectum, when meconium escaped. A tent of lint was introduced, well oiled, and oleum ricini ʒij. was given. The passage of meconium gave relief. A moderate-sized urethra-bougie was then passed from time to time, to dilate it. The medicine produced but a very slight action, and death occurred seventy-six hours from the operation. There was no autopsy.

47. (Ricord. London Lancet, Vol. XXV., p. 295.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* The patient, æt. 22, came to R. for an examination, at the request of her lover. The speculum was introduced easily, and at first nothing abnormal was seen. However, the depth to which the instrument was carried, without meeting the neck of the uterus, began to excite some astonishment, when a lump of fæcal matter was brought into view, simulating, to the touch, the os uteri; and also some grape seeds, at first taken for vegetations. Some malformation being now suspected, a more careful examination was made. The external organs were natural, but there was no anus, the place where it ought to be being marked by a brown spot, irregularly radiated and of the size of a shilling. The ring of the vulva did not present any carunculæ myrtiformes, had eccentric folds *of mucous membrane,* and possessed a much greater con-

traction than the natural constrictors of the lower part of the vagina, but less than the sphincter ani. Beyond this vulvar ring, the finger passed easily into the recto-vaginal canal. No transverse rugæ were found as usual in the vagina, and the speculum, when introduced to its full length, was arrested by fæcal matter. No trace of the uterus could be seen or felt. By her account, the fæces were always passed by the vulva, and were perfectly under the command of volition, but flatus sometimes escaped involuntarily. When the fæces were at the vulvar ring, she felt a desire to go to stool, and when this desire was satisfied, the finger, introduced as far as possible, no longer met with any obstacle. An injection was always used immediately after, and she was careful in keeping herself clean. Menstruation had never shown itself under any form, and no trace of blood was ever found in the urine or fæces. Although she had lived with this man for three years, he never suspected any malformation.

48. (Forget. Révue Medicale. 1835.)—*Imperforate Rectum. Operation* ten days after birth, with a lancet. Cure.

49. (Boston Med. and Surg. Journal, Vol. XXI., p. 101, 1840.)—*Imperforate Anus and Rectum.* There was no anal opening when three days old. The raphé of the perinæum extended without interruption to the point of the coccyx. The abdomen was tender and tympanitic, but there was no vomiting. The urine passed without difficulty.

*Operation.* An incision was carried, three quarters of an inch or more deep, over the supposed situation of the anus, but without success. It was then decided to open the cœcum in the right iliac fossa, which was done, and several ounces of fæces escaped, with great relief to the symptoms. Eight days after the operation the sutures were removed, and the progress toward the cure was rapid.

50. (Boston Med. and Surg. Journal, Vol. XXIII., p. 210. Shipman.)—*Imperforate Anus and Rectum.* Three months after the birth of a child, he was consulted and found the abdomen enlarged and hard; there had been vomiting, fits of crying and straining.

On examination, there was no opening into the rectum, but a little posterior to the natural situation of the anus, a slight projection of the skin was observed, giving an obscure feel of fluctuation. The skin was also slightly inflamed. It was opened at this point, and about a tablespoonful of pus was discharged, but no fæces. On examining with the probe, no communication with the intestine was found. A sharp-pointed narrow bistoury, with the edge toward the sacrum, was then passed three inches in the direction of the rectum. On withdrawing it, the point was smeared with fæces. There was considerable hæmorrhage. A small gum-elastic bougie was then passed, afterward larger ones till they passed without difficulty. An injection of warm water was then thrown through the tube, and a quantity of liquid fæces came away. The tube was passed twice a day, with an injection each time, and in the interval a large wax bougie was constantly worn. The day after the operation, a pint of fæces escaped at one time, and the same amount continued to escape daily for a week. The symptoms had ceased before the operation. The bougie was persevered with for four weeks, when it was discontinued, and the child improved very fast in flesh. The evacuations became natural, and two years afterward the control over the bowels was as natural and perfect as in any healthy child.

51. (Boston Med. and Surg. Journal, Vol. XXXVI. (Houghton.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* Saw the child when it was about ten hours old. On examination, there was no appearance of an anus. The raphé along the perinæum extended only a short distance back of the scrotum. The child was otherwise malformed—the sacral portion of the spine was wanting, and no operation was attempted on that account. A few hours after the doctor left, meconium passed by the urethra, and continued to do so until death, forty-eight hours after birth.

*Autopsy.* The rectum terminated in the neck of the bladder by a very small opening, barely sufficient to admit an ordinary-sized probe. The rectum also terminated against the lower lumbar vertebra.

52. (Med.-Chir. Soc., London. 1853. Stanley.)—*Imperforate Anus. Operation.* Death.

53, 54, 55. (Stanley.)—*Imperforate Anus.* Similar to case No. 52.

56. (Boston Med. and Surg. Journal, Vol. XLIV. Mitchell.)—*Imperforate Anus and Rectum.* Was called to see a child three days old, without the slightest trace of an anus, and with the raphé of the scrotum running down nearly to the coccyx. The child was drowsy, and the skin purplish.

*Operation.* The child was placed upon its face. An incision was then made, nearly an inch long, commencing just anterior to the coccyx, and continued through the skin and firm ligamentous growth beneath. Then a long, narrow, straight bistoury was carried up an inch and a half in the direction of the curve of the sacrum, and entered the intestine. Meconium and gas immediately escaped. About two teaspoonfuls of blood were lost, and yet he began to fail and sink into syncope. Oleum ricini was given, with brandy and water. Tent to be kept in constantly. The bowels were freely opened, but the child grew feeble, and died two days after the operation.

57. (Boston Med. and Surg. Journal, Vol. XLVI., p. 100. A. B. Clarke.)—*Imperforate Rectum.* Examined a child two days after birth. The little finger entered the anus easily, but felt a resistance after passing about three quarters of an inch.

*Operation* was not done till the ninth day, when a trocar was used. No meconium came at first. Forcing up the canula still further, it came in abundance. There was but little loss of blood. The child made no cries, and seemed to be relieved, yet it died in twenty-four hours.

*Autopsy.* The colon was adherent on the left side, throughout its whole course, to the internal walls of the abdomen. The abnormal state of the rectum was now seen to consist of a fleshy-looking mass, interspersed with fat and cellular tissue, which made it resemble the muscular tissue of other parts; it closed up the rectum for the space of an inch and a half. The trocar had gone directly through the centre of the mass, and was perfectly successful so far as the operation was concerned.

58. (Boston Med. and Surg. Journal, Vol. XLIX., p. 115. Gilman.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* Saw the child twenty-four hours after its birth. There was no rudiment of an anus or where it should be. The abdomen was not distended. There was a mere apology for a penis, with the urethra terminating near its root, just above the scrotum. A probe was introduced into

the bladder, and its removal was followed by urine and fæces. The probe was also smeared with meconium.

*Operation.* An incision, two and a half inches long, was made through the skin and cellular membrane, from the extremity of the coccyx, and extended along the perinæum. No muscular fibres were divided. The dissection was then carried in the direction of the rectum for the distance of an inch and a half, where the cul de sac of the rectum was felt enormously distended. This was freely laid open, and a copious evacuation took place, with great relief to the child. There was not hæmorrhage enough for a ligature. Tents were at first used, and then a tube, which produced some straining, but in a short time the parts were quiet. After the operation, there were no fæces in the urine, nor did the urine pass into the rectum. In a few weeks the parts were entirely healed. At the end of a year, the child was vigorous and large.

59. (Collison.)—*Imperforate Anus and Rectum.* There was no operation. Death.

60. First Case.

61. (S. Parkman.)—*Imperforate Rectum.* Patient was fifty-two hours old. The anus was natural. The obstruction was nearly two inches within the anus. After waiting eighteen hours, till the septum was distended with meconium, a trocar was forced through the septum, an enema given, and the bowel washed out. The opening not remaining free, a director was passed into the aperture made by the trocar, and both the sphincter ani and septum were divided from before backward by a free incision. The finger could then be passed, and it entered a large cavity. Three months after the operation, the child was doing well. Directions were given to have the finger, well oiled, passed in daily.

62. (Boston Med. and Surg. Journal, Vol. LVII., p. 293. G. S. Jones.)—*Imperforate Rectum.* On the second day from birth, the abdomen was tense and tympanitic. Urine had been passed. The anal opening was normal and freely admitted the finger, well oiled, but the finger could not penetrate beyond an inch and a half, on account of some obstruction. While the finger was in the passage, the bowel could be felt above, during the efforts and straining of the child.

*Operation.* A small bivalve speculum was first introduced into the anal opening. With a spear-pointed stilette, an opening was made into the part that was forced down, and on withdrawing the instrument there were copious discharges of gas and meconium. A crucial incision was then made across the end of the pouch, and the opening further enlarged by bougies. At the end of six weeks, a bougie one half of an inch in diameter could be used. Two and a half years after the operation the child appears well and hearty, and suffers no inconvenience from the malformation or operation.

63. (Boston Med. and Surg. Journal, Vol. LVII., p. 334. C. E. Buckingham.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* The child being examined on the second day, there was no evidence of an anus, either by protrusion or discoloration. During the night there was bilious vomiting, and latterly straining, as if to evacuate the bowels. There had not been any discharge of urine. Did not cry, but was constantly moaning.

*Operation,* thirty-two hours after birth. An incision was made in

the centre of the cleft of the nates, from the scrotum to the coccyx, crossed by another at right angles from one tuber ischii to the other. The dissection was then carried backward and a little to the left, for two inches, with a sharp-pointed straight bistoury. No evidence of the neighborhood of the rectum being obtained by the finger, a hydrocele trocar was passed into the wound in the same direction an inch and a half further. On withdrawing it, meconium was found upon it. The wound was then enlarged with a knife, a female catheter introduced, and an enema given. Immediately there was a fair discharge of meconium, and a slight discharge of urine. No applications were made to the wound. On the next day, a sponge tent was introduced two and a half inches, and air came through the penis. Had a small abscess over the short ribs and scrotum of the left side. A female catheter and ebony bougie were used. About five months afterward, urine and fæces, mixed, were passed by the urethra. Was alive nearly six years afterward, and generally in good health.

64. (G. H. Gay.)—*Imperforate Anus and Rectum. Operation* upon a patient of Dr. Dupee, when five days old, with a trocar. Death the next day.

65. (G. H. Gay.)—*Imperforate Anus and Rectum. Operation.* Death.

66. (Boston Med. and Surg. Journal, Vol. LVII., p. 238. S. Cabot.) *Imperforate Rectum.* Child was seen on the fourth day, and the anus was found natural. The finger passed in one inch. When the child strained, the bowel could be felt pushing downward, the central portion of it feeling considerably thicker than membrane. A trocar was thrust in, and a large quantity of fæces and meconium was discharged. The next morning, two probes and a catheter were introduced. Nothing came through the canula. In the evening there was vomiting of fæces. The opening was enlarged by the knife and the intestine punctured, which was followed by a small quantity of gas and meconium. Death the next day.

67. (Boston Med. and Surg. Journal, Vol. LVII., p. 238. F. Higginson.)—*Imperforate Anus and Rectum.* The anus presented a wrinkled depression like the umbilical pit, and was lined with true skin. There was no appearance of mucous membrane.

*Operation* by the trocar and knife. The child lived eighteen days.

*Autopsy.* The intestines were distended with flatus. The bladder contained a small quantity of dark-colored urine, and was drawn up and lay almost entirely over the symphysis pubis, the urethra making quite a sharp curve under the pubic arch. The uterus was drawn up and rested upon the posterior surface of the bladder. The whole space at the brim of the pelvis was occupied by the inflated rectum. This terminated in a cul de sac, where the peritoneum is reflected back from the posterior wall of the uterus. At the lower part of this cul de sac was an ecchymosis a few lines in length, where the muscular coat seemed to have been divided. The wound did not extend into the mucous membrane. The bottom of the sac, on a level with the brim of the pelvis, had been apparently drawn up by the excessive distension, carrying with it the other pelvic organs.

68. (Boston Med. and Surg. Journal, Vol. LVII., p. 239. S. F. Ainsworth.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* There was no external trace of an anus. The skin over the entire

perinæum was smooth, and the raphé extended to the coccyx. At each expulsion of meconium or urine by the vagina, a slight motion was observed in the perinæum. There were two openings in the vagina—one occupying the place of the urethra, the other between the internal labia, surrounded by a small, red tumor of the size and shape of a bean. These openings barely admitted a common probe, and from both a small quantity of meconium and urine was expelled. On exploring the opening into the vagina, a probe, carried upward close to the pubis, passed into the bladder, and was felt on the abdomen; but directed backward and upward, it passed one half its length, and encountered a firm body, supposed to be the upper part of the sacrum. When passed downward, the point could be carried a few lines below the orifice, and indistinctly felt in the perinæum.

*Operation.* A probe in the lower opening in the vagina was passed downward as far as possible. The incision was then made along the raphé of the perinæum, and continued one and a half inches in the track of the rectum. The point of the probe was distinctly felt. The tissues were then separated from the cul de sac, the intestine was brought down to the external opening, laid open, and confined by sutures to the external wound. Flatus escaped when the intestine was opened. A tent was introduced. For a few days the patient did well. Then, there were intervals of great distress in the breathing, with a purple discoloration of the face, neck, lips and ears. These increased, and the patient died after living eight days.

*Autopsy.* The heart was malformed. There was only one ventricle, into which the aorta opened at its summit. The only auricle was on the right posterior aspect, communicating obliquely with the ventricle. The pulmonary artery, small, was given off below the point where the aorta enters the heart, and on the left side passing upward and backward, and bifurcating behind the aorta. The rectum terminated in a cul de sac, one and a quarter inches from the perinæum, and communicated with the vagina from its upper border. The uterus was bifid.

69. (W. Lewis.)—*Imperforate Anus.* The anus was closed by a thin membrane.

*Operation*, by incision. Cure.

70. (W. Lewis.)—*Imperforate Anus and Rectum.* Operation. Death.

71. (B. Bell.)—*Imperforate Anus and Rectum.* The rectum was very high up.

*Operation.* Lint and tents were kept in, after the trocar had been used. There was great tendency to strong contraction. Gentian root was used to keep the passage open, together with sponge tent and other substances. The irritation and pain were frequently so great that all the dressings were discontinued. Nothing but a continued attendance for eight or ten months prevented the necessity of a frequent repetition of the operation. Cure.

72. (B. Bell.)—*Imperforate Anus and Rectum.* Similar in every respect to Case No. 71.

73. (Boston Med. and Surg. Journal, Vol. XLII., p. 206. *Imperforate Anus. Operation*, when two days old. For fifteen months continued well, at which time it was discovered that the fæces passed by the urethra. For thirteen months afterward there was no passage by the anus, fæces still passing off by the urethra.

74. (Boston Med. and Surg. Journal, Vol. XLII., p. 273. York.)

*Imperforate Anus, with an Abnormal Opening of the Rectum. Operation*, on the third day, with a trocar, and about two ounces of meconium drawn off. The canula was left in for a week, and the opening being dilated with a sponge, the fæces passed tolerably well. The instrument was occasionally removed and cleansed. Once or twice it was corroded and obstructed. The fæces then came through the penis, and was first noticed when the child was six months old. Three or four months before death, the parents removed the tube without the sanction of Dr. Y., and soon after fæces passed through the penis, and continued so ever after, and for a time also through the artificial opening. Died from a fall.

*Autopsy.* The rectum was much enlarged and moderately thickened, containing some liquid fæces and foreign matter. The opening into the urethra was direct, and just in front of the verumontanum. The artificial opening was nearly closed, so that the head of a very small pin would not pass. There was liquid fæces in the bladder.

75. (Wolff.)—*Imperforate Anus and Rectum.* The imperforate state of the anus was not discovered till the twelfth day, when hiccough and convulsions had come on. The abdomen was hard and painful. There was also nausea and vomiting.

*Operation.* A lancet was thrust in, on the next day, in front of the coccyx, to the depth of an inch, without finding any rectum. The incision was then carried an inch deeper, without effect. Then, with a pharyngotome, he succeeded in penetrating the intestine. An enema was given, which brought away some meconium. With enemata and tents, the child recovered.

76. (Latta.)—*Imperforate Anus and Rectum. Operation.* An incision an inch and a half in depth was made before the rectum was laid open. Oval canulæ were introduced, and removed once in twenty-four hours. In two months there was a cure. The instrument was used for nine months, to prevent contraction.

77. (Latta.)—*Imperforate Anus and Rectum.* Similar in every respect to Case No. 76.

78. (Medical Recorder, Vol. VII. Philadelphia. 1824. I. R. Barton.)—*Imperforate Anus and Abnormal Opening of the Rectum.* The infant was six weeks old, with not the slightest trace of an anus. The fæces came per vaginam. A fistulous opening was found through the recto-vaginal septum.

*Operation.* An incision was made through the parts where the anus ought to be. The instrument then passed into the rectum, and the fæces escaped freely. The wound was plugged with oiled lint. In a few days, it began to granulate and cicatrize. A piece of a bougie was then introduced through the wound, and brought out of the vagina through the original opening into it. This was persisted in for several weeks. The mother withdrew it, and the opening (anus) closed up, rendering the operation abortive. The evacuations came every four or five days; sometimes the period was longer. This was at the age of nine months. A director was then passed into the rectum through the opening in the vagina. The vagina and integuments were laid open as far back as where the anus ought to be. The dissection was carried down till the end of the bowel was felt, and opened freely. The subsequent treatment was to promote granulations

and the cicatrization of the original opening, and so much of the anterior portion of the incision as rendered the vagina incomplete. The original aperture closed up with that part of the incision connected with it. The vagina became complete, and a route direct from the rectum was established, having no connection whatever with the vagina, and there was control over the fæces.

79. (Satchell. Vide the same Vol. as Case No. 78.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* There was some depression where the anus ought to be. The fæces were passed by the vagina, through a small opening, an inch and a half from the os externum. The fæces came with considerable pain, at intervals of ten days or two weeks, which were fluid or of very soft consistence.

*Operation*, by Dr. Parish. A curved probe was introduced into the vagina, then through the orifice of communication into the rectum, so as to protrude the integuments in the place where the anus should have been. An incision was then made on the point of the probe, with a scalpel, and the opening thus made was enlarged anteriorly and posteriorly by a bistoury, until it was supposed that the intestine was opened, the non-discharge of fæces being the only circumstance evidencing the contrary. Presuming that the rectum was opened, a silver curved tube was introduced to prevent the closure of the wound, and to permit the evacuation of the fæces. In two or three days, it was found that the rectum was opened. Dr. Barton's operation was then done, with a successful result.

A large quantity of fæces was found in the rectum, and with the handle of a teaspoon, enemata, and repeated doses of oleum ricini, the bowels were thoroughly emptied. Two days after this operation, an unaltered melon seed was passed, which must have been in the bowels since the preceding fall. Three weeks and two days from the time of the second operation, she was discharged cured. At that time she could retain or discharge the fæces. No dressing was used, but the finger was introduced every day or two.

80. (Chelius.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* Operation. Cure.

81. (Dieffenbach.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.*

*Operation.* A curved director was introduced through the vagina into the aperture of the rectum. A pointed bistoury was then thrust behind the fossa navicularis into the groove of the director and cut outward, dividing the whole perinæum and widening the aperture of the anus to near the coccyx. The rectum was laid bare by the division of the cellular tissue, stretching forward to the vagina and presenting at the bottom of the wound. The edge of the rectum was then dissected from the wound, divided to the extent of an inch in the direction of the external skin and muscular wound, and fastened to the separated edges of the rectum on each side of the cleft perinæum. The aperture of the rectum into the vagina was closed completely by occasionally touching it with nit. argent. Three weeks after this operation, the formation of a new perinæum was attempted. The hinder surface of the open end of the rectum was farther separated from the vagina. The portion of the intestine, thus set free in the middle, con- and receded about four or five lines. The scar of muscle and

skin was removed from this inter space, the deep lying parts were brought together with a needle, and the edges of the wound with hare-pins and twisted suture. The cure was completely successful.

82. (I. F. South.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* There was no anus, but a slight puckering where the anus ought to be, which was protruded when the child cried. In front of the scrotum and along the line of the raphé as it went on to the prepuce, was a small opening just large enough to admit a probe, from which meconium escaped.

*Operation.* An incision, dividing the puckered skin, was carried an inch deep before the rectum could be felt, which was then opened and an urethral bougie passed in, from which meconium escaped. A probe in the ante-scrotal opening passed in a canal beneath the urethra, through the perinæum, and became larger and larger as it approached the rectum where it terminated. No bougie nor anything else was left in. In two weeks the opening had closed up, and the meconium came by the aperture in front of the scrotum. A second opening was made again into the rectum, a piece of bougie was introduced and removed three or four times daily, for emptying the bowels. At the end of three months, the anal opening had so contracted that it would not admit the point of a probe. Another operation was done, and a larger bougie used and worn two weeks, then a pewter pipe the thickness of a finger was tried. Two months after, the pipe had slipped out by neglect, and the opening again closed. Another operation was required, and a large bougie ordered to be passed frequently. Did not see him again till he was seven years old, when he was a well-grown boy, with an immense belly. The anus continued open, as also the opening in front of the scrotum. The mother would not allow any operation for the ante-scrotal canal. Saw him again when eighteen years old, and the anus looked like a bullet-hole in a board. Said he had no difficulty in passing or retaining his fæces. The anal orifice was completely filled with prolapsed mucous membrane or rectum; the finger readily passed through this as far as the knuckle into a cavity full of fæces, and run along the perinæum beneath the membranous part and bulb of the penis to the back of the scrotum, where the canal narrowed and would only admit the finger. This communicated with the opening before the scrotum. The prolapsed mucous membrane acted like a valve, and prevented an involuntary passage of fæces.

83. (Dupuytren.)—*Imperforate Anus. Operation* for an artificial anus in the right iliac region. Death.

84. (Nelaton.)—*Imperforate Anus and Rectum. Operation* for an artificial anus in the left iliac fossa. Death.

85. (Thomas Copland.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* Was five days old when first seen. The fæces came by the penis.

*Operation.* Death.

86. (T. Copland.)—*Imperforate Rectum.* The cul de sac was an inch from the anus.

*Operation.* Cure.

87. (Dr. Palmer.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* No operation. Death in five days.

88. (Petit.)—*Imperforate Anus and Rectum. Operation.* Death on the next day.

*Autopsy.* The rectum was found converted into a round, solid mass, eight lines long.

89. (Lane.)—*Imperforate Anus, with an Abnormal Opening of the Rectum.* No operation. Death on the ninth day.

90. (Doane.)—*Imperforate Anus, with an Abnormal Opening of the Rectum. Operation.* Death on the eighth day.

91. (Flint.)—*Imperforate Rectum.* No operation. Death.

92. (Dale.)—*Imperforate Rectum.* No operation. Death.

93. (H. G. Clark.)—*Imperforate Rectum. Operation.* Death two and a half days after birth, and nine after the operation. No fæces ever escaped.

94. (G. B. Doane.)—*Imperforate Rectum.* The finger could be passed up an inch.

*Operation.* Death seventeen hours afterward, and four days from birth. The rectum was not opened.

95. (Davis.)—*Imperforate Rectum.* There was a thin membrane an inch and a half from the anus. No operation. Death on the sixth day.

96. (Wheeler.)—*Imperforate Rectum.* No operation. Lived two days.

97. (E. C. Phinney.)—*Imperforate Anus. Operation.* Intestine not opened. Lived five days.

98. (Fisher.)—*Imperforate Rectum. Operation.* Intestine opened. Lived three days.

99. (Gordon.)—*Imperforate Rectum. Operation.* Intestine opened. Lived three days.

100. (Moore.)—*Imperforate Rectum. Operation.* Intestine not opened. Death.

101. (Cotting.)—*Imperforate Rectum.* No operation. Lived two days. The intestine was found lacerated.

102. (Ayer.)—*Imperforate Rectum, with an Abnormal Opening.* No operation. Fæces came by the penis. Death.

103. (Ware.)—*Imperforate Rectum.* No operation. Lived fourteen days.

104. (Parkman.)—*Imperforate Rectum. Operation.* Intestine not opened. Lived a few hours.*

In children born with any of the malformations above alluded to, and where no operation is attempted for the purpose of relieving them, some of the following symptoms sooner or later appear:—swelling of the bowels, increasing to great distension; pain; local and general distress; cries or moanings; painful straining; nausea; vomiting, at last of fæcal matter; hiccough; general yellowness of the skin; convulsions; death.

With these malformations, there is frequently in the same individual, a further malformation of the neighboring sexual organs, in a greater or less degree of imperforation, or of some arrest of development, as fissure of the scrotum, with the glans penis and the meatus in the pe-

* For the last sixteen cases, I am indebted to Dr. J. B. S. Jackson for a reference to his numerous notes upon this malformation.

rinæum; spina bifida; the absence of a portion of an extremity, or the interesting peculiarity of the heart in Dr. Page's case, No. 68.

In some cases the sphincter ani is present when there is an imperforate anus and rectum; in other cases it has been found absent when the anal aperture only is closed. But the fact of a more or less control over the fæces after many of the operations, demonstrates its presence in some degree, and sufficiency to prevent the soiling of the clothes.

In case No. 60, before the operation there was strong contraction and retraction about the anal region on pressure with the finger. When the septum was divided and the finger introduced through the opening, it still contracted strongly, and yet there was no intestine as far as the finger could reach. So that the sphincter is sometimes present when there is an absence of the rectum, and sometimes deficient when the rectum is very near the anus.

Nothing can be expected from any effort of nature to effect any substantial relief. If no operation is undertaken, death must soon follow.

Nothing will avail but some surgical interference. The question arises whether it is well to recommend a doubtful remedy or wait for certain death. The encouraging results in some of the above cases certainly authorize and warrant an attempt at relief by some operation. An operation may not be followed by the desired result, still an attempt should be made, unless there are other complications or conditions of the system that would contra-indicate an operation. The kind of operation must be adapted to the particular case, and care should be taken against a too long delay in order to prevent a laceration of the intestine, and also against giving purgatives to force down the intestine for the same reason.

When the anus is closed by simply a thin membrane, a circular incision may be used to remove it, or a crucial one, with the after removal of the flaps. Then measures should be taken to prevent any union of the divided parts for a longer or shorter period. When there is no trace of an anus, and with it a closure of the rectum at a greater or less distance from the anus, or a communication of it with the bladder, urethra or vagina, the operation is more difficult, and more uncertain in its results. For an operation to be successful, the opening must be sufficiently free and permanent. Instead of using a trocar and making a hole merely, with the risk of tearing the parts in the process of dilatation, a free incision with a sharp-pointed instrument, guided by the finger, is by all means to be recommended. Whatever the operation, let the opening into the intestine be made large enough at the first operation, if possible. The tendency to contraction will be much greater in the subsequent operations. If possible, the incision should enter the obstructed end of the intestine rather than the sides, and where the obstruction is hard and firm, remove the whole of it, if it can be done safely, for frequently it seems similar to cicatricial tissue. The success of an operation will be greatly increased by the thinness of the obstructing septum, and by its close proximity to the situation of the natural anus. In the after treatment, the important element in the way of success is the persevering efforts to overcome the contraction of the parts. Here arises the main difficulty and labor. It may be work, and very *hard work too*, to overcome the contractions; but if

success follows, the greater will be the credit. Cases may occur to corroborate practically the truth of B. Bell's remarks in speaking of the exceeding difficulty of preserving the passage sufficiently wide, when he says, "Indeed, no case in which I was ever concerned gave so much perplexity and trouble, either to the patient or myself, as each of those I have mentioned (Cases No. 71, 72); for although in both, the openings were at first made sufficiently large, yet nothing but continued attention for the space of *eight* or *ten months* prevented the necessity of a frequent repetition of the operation." Again, "but when the rectum lies deep, I am inclined to think, from the event of those cases, that although ultimately a complete cure may commonly be obtained, after a free discharge of fæces is procured, much care and attention on the part of the operator will always be required for a considerable time after the operation; and in general we may suppose that the difficulty will be in proportion to the depth of the gut." He succeeded by his perseverance. Latta and others have succeeded.

Use the finger as a director, and with it dissect away the intestine from the neighboring parts when it can be done. Also have a probe in the bladder, as an additional adjuvant. Try to bring the intestine down and secure it to the external wound, as Amussat did successfully.

To dilate and keep the opening sufficiently free, use whatever means agree the best with the patient, by causing the least irritation, whether a soft or hard solid.

Single or double metallic tubes of different sizes, similar to the tracheotomy tubes, may be used with advantage.

The greater the distance of the cul de sac of the rectum from the anus, the greater will be the danger from fæcal infiltration and the difficulty of maintaining a sufficiently free and permanent opening after the operation.

In the cases where the rectum communicates with the urethra or bladder and which are left to themselves, a fatal result is almost inevitable as soon as the fæcal matter is firm or hard and accumulates. When the communication is with the vagina, the danger has not been so great, on account of the greater size of the opening, and the facility of sufficiently enlarging it when near the vulva.

The question of the propriety of performing or recommending an operation to establish an artificial anus in the left iliac, left lumbar or right iliac region, must rest with the parents and surgeon. If they are fully conscious of the state of things that must necessarily follow an operation, supposing it to be successful, and, in spite of all these difficulties and discomforts, urge an operation, there seems to be no other alternative but to do the best we can.

Nov. 23d.—*Cancer of the Liver.* Dr. Homans read the following history of the case, received from Dr. H. W. Rivers, of Providence.

"At the age of 17, Mr. W. had an attack of typhoid fever, from which he recovered, and continued in good health until within a few months of his death, with the exception of a tendency of blood to the head and attacks of nightmare. He has always been a good liver, but seldom exceeded one glass of brandy or gin and water a day, which he usually took just before dinner. A few months previous to his last illness, he had (as I am informed) palpitation of the heart

and an intermittent pulse. In the month of May last, he first complained of trouble in the rectum.

About the middle of July, feeling general malaise, he consulted Dr. Mauran. After a few days, he began to show the jaundiced appearance which he had when you saw him; on the 29th of July, was confined to the house, and on the 6th of August, to his bed. Dr. M. at this time prescribed for him blue pill and large doses of olive oil, which induced violent and excessive vomitings. On the 18th of August, I first saw him, and found him as I have heretofore described to you, viz.: complaining of pain in the region of the liver, which was considerably enlarged, obstinate constipation of the bowels—alvine evacuations, when procured, of a clay or putty color—great pain in the rectum, especially when injections were administered; pulse varying from 80 to 100 in frequency, but quite regular. The tongue, for the first two weeks, was covered with a thick brown coat, which cleaned off and was followed by aphthæ. He had, during this time, occasional vomitings, which had, for the last few days of his life, a decidedly fæcal odor. The urine was for the most part heavily loaded with bile. The yellowness of the skin continued. He was attended by Dr. Mauran and myself, with occasional visits from you, until the 30th of September, when he expired.

"Mr. W. was what might be called a man of active habits, having been engaged from early life in mercantile pursuits. He usually took a nap after dinner, and when doing so, if his feet or legs rested on the seat of a chair or ottoman, nightmare invariably followed."

The following account of the *post-mortem* appearances is from Dr. G. L. Collins.

"*Sectio Cadaveris*, made Wednesday, Sept. 23d, 1857, at 4, P.M.

"The external surface was everywhere deeply jaundiced, as were all the tissues of the body.

"The abdomen was full and tumid, but not very resonant.

"There was some omental adhesion with the peritoneum, in the right iliac region, and near the caput coli.

"The stomach was distended to the capacity of nearly three pints, with gas and a pint and a half of bloody fluid. Its mucous surface was ecchymosed in spots, and, about the lesser curvature, presented many small ulcerations.

"The duodenum was very firmly adherent to the liver and the neck of the gall-bladder.

"The small intestine, to within four inches of the ileo-cœcal valve, was distended (by a thinnish, grumous substance) to the diameter of nearly two inches; at this point, an old fibrinous band, thick and dense, encircled the bowel, reducing its calibre to the size of the point of the fore-finger, offering a great obstacle to the passage of fæcal matter. This obstruction was evidently the result of some early inflammation. Beyond this point, the ileum was of the normal size and collapsed.

"The whole colon, particularly the caput, was moderately distended with a thick, pasty, clay-colored fæcal matter.

"The vermiform appendix was adherent to the peritoneum, and its cavity partially obliterated. The colon, where it came in contact with the liver and gall-bladder, had become firmly adherent, completely obscuring the latter organ.

"A portion of the rectum was surrounded by a dense abnormal deposit, adherent to it, and, apparently, producing some constriction. Within the coats of the rectum, and near this deposit, was imbedded a small yellowish tumor, of the size of half a filbert.

"The spleen was a little large—rather soft. The pancreas was healthy, and the duct pervious.

"The liver was of medium size—rather thick—and the borders rounded. It was adherent to the diaphragm, from old inflammation, and to the colon and duodenum, as stated above. The gall-bladder was small—its coats thickened, and the lining membrane ulcerated. It contained about an ounce of pus, and seven gall-stones, five of which were small and irregular—about the size of small peas. Two were bean-shaped and smooth, measuring, one seven eighths of an inch in length, and the other three fourths of an inch. The cystic duct, the hepatic and the ductus communis were obliterated, but the latter was pervious an inch before entering the duodenum. This obliteration was owing to the deposit about them of a whitish, dense, though friable substance, imbedding them, and a portion of the neck of the gall-bladder, and extending into the substance of the liver, under the gall-bladder, to the depth of an inch. The liver contained, in all its parts, numerous other deposits, of a similar nature, varying in size from a small shot up to an inch in diameter—some of them just under the peritoneum, and others deep in its substance.

"The urinary organs were sufficiently healthy.

"The lungs were healthy—no adhesions. The heart was small, contained little blood, and its structure was rather soft. The mitral valves were atheromatous, and calcareous at the base. The aortic valves were also atheromatous.

"A microscopic examination fully confirmed the previous supposition, that the disease of the liver was cancerous. The little tumor in the coats of the rectum was shown to be of the same nature, as was also the abnormal deposit surrounding this portion of the intestinal tube.

"The cause of death, therefore, in my opinion, was due to cancer of the liver."

Nov. 23d.—*Recurrent Fibro-plastic Tumor of the Axilla.* The case was reported by Dr. Gay, and is interesting from the fact that this was the second recurrence of the disease, the patient having been operated upon twice before.

All the right axillary space was blocked up by the diseased mass, except a small portion just beneath the clavicle. On bringing the arm to the side of the body, pressure was made upon the tumor, which necessarily forced upward and forward the pectoralis major muscle, and at the same time pushed outward and backward the scapula, with its muscles and the latissimus dorsi, giving, at a first view, the appearance of a very extended growth. In this position of the arm, there was scarcely any mobility to the tumor. On a full abduction of the arm, the pectoralis major compressed and forced downward somewhat the tumor, so that in this position scarcely any movement could be given to it. But on separating the arm from the body just enough to pass up the hand, the tumor was found to be freely movable in *every direction*, and to be made up apparently of two lobes, one a

little larger than a hen's egg, mostly external to the axilla, with small irregularly rounded prominences upon its surface; the skin over this was generally movable, but thin, vascular, and including two or three inches of the old cicatrix. The larger lobe, constituting the main portion of the tumor, filled the axilla, the skin over which was movable and healthy.

*Operation.*—With the arm abducted, an incision was commenced at the top of the axilla, which was carried down straight to the smaller lobe; from this point it branched off on either side, till the whole of it, with the skin, was included in the incision. The attachments at various points were then carefully dissected away by the knife-handle and finger, and the whole tumor peeled out at last, smooth and clean. The tumor was pretty regularly smooth, elastic and soft. There was a larger and a smaller tumor. On a section of the larger, which was 3½ inches long by 2¼ wide, its interior appeared to be mostly of a yellowish-white color, strongly fibrous, with two reddish patches—one two inches long and an inch wide, the other about an inch in both directions—looking like some recent inflammatory action and deposit. Under the microscope, fibro-plastic material was strongly marked.

The smaller one, two inches long and three fourths of an inch broad, was made up of many small cysts, with yellowish fluid, and crevices, with glandular tissue projecting into them, like the proliferous cysts of Paget. Under the microscope, it appeared to consist of glandular hypertrophy.

The previous history of the patient, Ellen McFaine, may be found in Dr. Gay's report of June 9th, 1856. See *Society's Records*, Vol. III., page 5.

Nov. 23d.—*Epithelial Cancer of the Thumb.* Dr. C. D. Homans showed the specimen.

The patient was a physician, over 70 years of age. He had had a wart upon the thumb, which one year ago had attained the size of a pea. Four months ago, he attended an obstetrical case, at which time he supposed himself to have been poisoned, the tumor upon the thumb since that time having increased in size and become extremely painful. Nitric acid and nitrate of silver had been applied without avail. The tumor was situated over the joint, and was somewhat larger than the thumb nail in diameter. The last phalanx was removed. The microscope showed the disease to be epithelial cancer.

Nov. 23d.—*Fibrous Tumor of the Uterus.* Dr. Jackson showed the specimen, taken from a dissecting-room subject. The patient was probably about 75 years old. The tumor was single, and situated in the anterior parietes. It was remarkably rounded, nearly the size of the fist, very dense, and partially ossified. It was free from peritoneal adhesion, except at one small point. The uterus was elongated, the elongation resembling that in the case reported some time since by Dr. Hodges.

Nov. 23d.—*Unusual Case of Varicose Aneurism. Amputation.* Dr. J. Mason Warren reported the case.

The patient was a girl 19 years old, of a delicate constitution. When two years old, she received an injury in the palm of the hand

from a stone, and very shortly afterward a small, pulsating tumor appeared there. About five years since, she presented herself at the Hospital. At this time a large tumor occupied the whole hand, held as it were in the palm. It was firm at some points, soft and pulsating at others, and seemed to have made its way backward, so as to give the idea of all the bones of the hand having been flattened and forming a shell to it. On compressing the tumor it gave a powerful aneurismal thrill, and in some parts of it the blood seemed to be contained in large aneurismal sacs; at others, arteries of the size of the carotid could be detected. Amputation was advised as the only resource, but declined. A cast was made of the arm and hand at that time, and is now before the Society. In addition to the tumor of the palm of the hand, there was also a supplementary tumor, quite firm to the touch, reaching up the whole fore-arm under the muscles, and without pulsation.

Last spring the patient presented herself again to Dr. W., the tumor having more than doubled in size, and the swelling on the fore-arm increased in a corresponding manner. At this time, also, a distinct aneurismal thrill attended the pulsation of the brachial artery, and the surrounding veins were in a highly varicose state. Auscultation of the tumor of the hand gave a sound like the noise of the machinery of a factory. The arm was now quite unwieldy, and at times very painful, and the disease was rapidly increasing. The surgeons of the Hospital, in consultation, decided that amputation was the only means of relieving the patient, but considered there was a possibility of meeting with erectile tissue in the arm. The patient was quite timid, and unwilling to encounter any more than the ordinary danger from an amputation. She therefore again returned home, but lately, the pain being so severe and the tumor making advances, by the advice of her physician, Dr. Jones, she came to town and submitted to the operation. In making the compression, it was deemed necessary to place a tourniquet quite high upon the limb, and screw it up so as to forcibly compress the whole limb. Nearly twenty vessels, both arteries and veins, required ligature, as it was soon found that the veins carried arterial blood and were disposed to bleed. The quantity of blood lost in the operation was extremely small, on account of the very effectual way in which the compression was applied.

On the day after the operation, there was a great reaction; and this was so violent on the following day, that it was found necessary to take blood from her, and which was done, with relief. The whole limb, however, shortly became of a fiery red color, and a diffuse, painful swelling appeared in the neck, just above the clavicle. In a week or ten days, this subsided, but one morning it was observed that the breast had suddenly become puffed up, and, a day or two after, a great quantity of pus was discharged by an opening, and counter-opening.

The patient, after a very long convalescence, has now gone home nearly well. During the whole of the after treatment, there was no hæmorrhage from the stump, and no evidence of any erectile tissue remaining.

The arm, which was exhibited, had been very beautifully injected by Dr. Bigelow, and a careful dissection made of it by Dr. Hodges. The wax injection was thrown into the veins and returned by the brachial artery. The veins of the arm and hand were greatly dilated, and

formed a beautiful basket-work around the bone; in the palm of the hand they communicated freely with the arteries, which were dilated so as to form what might be called large sinuses. The solid part of the round tumor in the hand and fore-arm was formed of condensed and infiltrated cellular tissue.

The specimen, together with the cast, was presented by Dr. W. to the Warren Museum.

Dec. 14th.—*Remarkable Changes of the Internal Structures of the Eye.* Case reported by Dr. Williams.

Dr. W. was requested, on the 5th of October, 1857, to visit a lady, aged about 60, in a neighboring town, for the purpose of performing an operation for cataract.

She stated that for two years past she had observed dimness of vision in the right eye, gradually increasing, till objects could only be perceived when they were in motion, and then only as passing shadows.

Within a few months, vision of the left eye has also diminished, though she can still guide herself without much difficulty. No pain has been felt in either eye. She is not aware of the occurrence of any cases of cataract or of loss of vision in her family, and knows no cause to which may be attributed the disease in her own eyes. The eyes are free from injection, and the pupils of natural size and sensibility to light.

After dilatation of the pupil by atropia, it was at once perceived that the right eye was not simply affected with cataract, but that it presented other and very interesting phenomena.

The opacity of the lens was very slight, seeming to affect principally its anterior cortical portion, and did not prevent a view of the peculiar changes exhibited in the middle and posterior part of the globe. In the space appropriated to the vitreous mass, there was an appearance resembling a transparent and very delicate membrane, irregularly convoluted upon itself, and dotted with small particles of yellowish deposit. These were in some parts thinly scattered; in other portions they formed clusters, and even small masses. None of the particles were free, but they appeared to be entangled in a nearly transparent tissue, by which their movements were controlled. As the eye was turned in various directions, a considerable change occurred in the position of the described appearances. They moved up and down, and at times seemed to revolve, as if the whole constituted a very light membrane, floating in a vitreous humor, which had become disorganized and fluid. The yellow particles did not have the well-defined outline exhibited by crystals of cholesterine when seen in the posterior chamber, but rather resembled minute deposits of lymph.

In this eye, the deficiency of visual power was greater than could be attributed to the slight opacity of the lens, or to the additional obstacle to the passage of light caused by the changes in the vitreous. It is probable that it was occasioned by a loss of sensibility of the retina, in consequence of a constant impulsion of waves of softened vitreous humor against its delicate structure, as the loosened tissue, probably the hyaloid, moved in various directions during the rotations of the globe.

In view of these very considerable changes of structure, and

evident loss of sensibility in the retina, no operation for the removal of the lens was deemed justifiable, as the prognosis could not be otherwise than unfavorable.

The left eye also exhibited a commencement of cataract; but no apparent changes resembling those seen in the vitreous of the other eye.

These phenomena are worthy of record, as having been observed in an eye which had never been the subject of accident or operation, and in which no inflammatory action had ever taken place, of which the patient had been conscious.

In this connection, Dr. H. J. Bigelow mentioned the case of a lady, who, in 1851, suddenly had impaired vision of one eye, this gradually growing worse for six months. On examination, the same appearances were observed as in the case reported by Dr. Williams. After artificial dilatation of the pupil, a dark and waving cloud or veil could be seen deep in the eye. The eye ultimately lost its sight by opaque cataract.

This patient had several times had ecchymosis of the conjunctiva, and Dr. B. questioned whether the appearances above described were not attributable to apoplexy within the eye, the blood being effused into the vitreous humor, and the coloring matter of the coagulum afterward absorbed. A softening of the vitreous humor would readily permit the movable appearance in the cloud on motion of the ball.

Dec. 14th.—*Large Encephaloid Tumor arising from the inside of the Stomach; Symptoms comparatively mild.*—The specimen, with the following history of the case, was sent by Dr. F. S. Ainsworth, and exhibited by Dr. Jackson.

Mr. S., aged 55, was born and lived in Paris, France, until the last ten years; he was a stove-maker by trade, and of regular habits; temperament bilious; of full habit, and even inclined to corpulency. In 1836, he began to be troubled with a sense of oppression whenever food or drink was taken into the stomach, occasionally amounting to a severe pain. This usually lasted two or three hours during the entire course of his disease. Never experienced any sickness at the stomach, and never vomited. Bowels costive, and he suffered severely from hemorrhoids. Skin pale, but without any yellow or straw-colored tinge. About the month of June last, the gastric symptoms became more severe. There was more pain after eating; the diluted wine or lager beer, which he drank occasionally, produced so much distress about the stomach that he abandoned their use, as well as that of coffee, tea and chocolate. Thirst became constant, and he was in the habit of drinking very thin milk-and-water gruel in large quantities; this, as well as the small quantity of food taken, produced severe pain in the stomach for several hours after eating. About the first of September, he began to emaciate; had fever at night, followed by profuse sweating; complained of constant uneasiness in the epigastric region, augmented by fatigue and by lying on either side; but he continued to work until the last of October.

He was first seen by Dr. A. on the tenth of November. He was then pale and much emaciated; skin free from any yellow tinge; pulse 84; tongue slightly coated about the edges, but moist. On examination, a large tumor was distinctly felt, filling the entire epigastric re-

gion, and extending three or four inches below the ribs upon the right side. There was little tenderness on pressure, and the tumor was not defined above the walls of the abdomen. No œdema of the extremities. Urine, high-colored, and left a slight cineritious deposit, but was found, on examination, to be in a healthy condition. The patient complained of no severe pain, but constant uneasiness (*malaise*) about the stomach, and great sense of weakness. There was little appetite, but food was relished. There was dull pain after eating, with sense of fulness and oppression; and this was equally the case with liquid or solid food, stimulating soups or simple milk and water. There was no nausea nor vomiting. Bowels somewhat costive, but dejections of natural color and consistence. There was occasionally hurried respiration.

Nov. 17th.—The tumor was now projecting from the abdomen, and its surface was covered with rounded elevations. The gastric symptoms were more severe, and he took no food but thin gruel and flaxseed tea. There was no acute suffering, and no nausea. Bowels moved easily by slight doses of castor oil, and the dejections were somewhat dark-colored, but otherwise natural. Death took place Nov. 28th, apparently from general exhaustion.

It is remarkable that such extensive disease of the stomach should have been unattended by any of those symptoms which usually accompany it—there having been no nausea nor vomiting, and no bloody dejections from breaking up of the fungous growth; nor even clay-colored stools or œdema from such extensive disorganization of the liver.

The liver was very greatly enlarged, and contained great numbers of soft encephaloid masses, that were extensively infiltrated with blood. A portion of the organ was shown to the Society. From about the middle of the small curvature of the stomach, and toward the anterior face, there arose from the inner surface of the organ a perfectly-defined tumor, four and a half inches in length, two and three-fourths in width, and one in thickness, considerably lobulated, of a very dark color, and less soft than the masses in the liver. Otherwise the organ was of about the usual size, and quite healthy. Externally to the small curvature of the stomach there was disease of the lymphatic glands, and, to some extent, of the cellular tissue; and yet, so particularly was the disease located in the inner coats of the organ, that the corresponding external surface was almost healthy; the muscular coat being, to a considerable extent, perfectly healthy beneath the tumor.

In regard to the symptoms in such a case as the above, Dr. J. thought that there was often a comparative latency of the disease; owing to the healthy condition of the rest of the organ and especially of the orifices.

Dec. 14th.—*Tubular Pregnancy.* Dr. Hooker, of East Cambridge, reported the case.

The subject of this case was about 25 years of age; of rather delicate health. She had been troubled, during the winter, with some tuberculous symptoms, which disappeared during the past summer. She was married in June last, and enjoyed very good health until the 6th of November. On that day she was suddenly seized, while at rest,

with a severe cutting pain in the left hypochondrium. The pain was acute and severe—producing syncope. She was relieved by opiates and rest, and was able to be about house in two or three days, but felt some uneasiness remaining in the left side at the seat of the pain. She was otherwise well. She had just passed over one catamenial period, and there were, at the time of the attack of pain, some symptoms of a return. She had previously menstruated at intervals of three weeks.

On the 14th of Nov., while on her knees, washing a canvas carpet, as she was reaching out, she felt, as she expressed it, "something give way in her bowels, just below the navel." The pain was very acute and distressing. She became suddenly faint, and was taken to her bed and her physician sent for. He found her faint, nearly pulseless; the skin clammy, pale; with great distress in the lower part of the abdomen, but not referred to the left side any more than to the right. This was about noon. After the free administration of morphia and diffusible stimulants for three or four hours, she rallied somewhat; the pulse became firmer; the skin was less moist and there was more warmth, though the distress in the abdomen continued, but not so severe as at first. At 7 o'clock in the evening, she grew more feeble and faint, and the pain increased. She continued in this condition till 10 o'clock, when Dr. Hooker saw her in consultation with Dr. Clarke, from whom he learned the above particulars.

Dr. H. found her very weak and pale, presenting the appearance of one sinking from the loss of blood; the pulse feeble and rapid; mind clear; countenance not anxious, but placid; skin cooler than natural. She did not complain of much nausea, but had vomited a little. There was pain in the abdomen, although not very acute, but continual distress. The abdomen had the appearance of that of a woman in the seventh month of pregnancy, in shape; resonance considerable—less below the umbilicus than above. She had passed two catamenial periods, and if pregnant it must be of about seven weeks duration—as she usually menstruated once in three weeks. The uterus, examined *per vaginam*, had a gravid feel, and, when raised by the finger, increased the distress in the bowels. The breasts were not much changed, with the exception of a very dark areola around the nipples.

She died about 10 o'clock on the 15th, less than twenty-four hours after the attack.

*Sectio Cadaveris.*—The shape of the abdomen was the same as described above. On opening its cavity, it was found filled with blood and coagula, and nearly three quarts were removed. The pelvis was found filled with coagula. A tumor was found in the left Fallopian tube, about an inch and a half in length, and three fourths of an inch in breadth, about midway from the left ovarium and the uterus. In this tumor were two rents. On opening the tumor no embryo was found, but the placenta, by its villous character, was very distinctly recognized. The tube was pervious from the uterus to the tumor, and no reason was manifest why the embryo had been arrested in its course. The uterus was thickened and enlarged, and the usual preparation made to receive the fœtus. The corpus luteum was distinctly seen, and both ovaria contained hydatids. The peritoneum and all the abdominal organs were healthy.

In reference to this case, Dr. HOOKER stated that he was guided in his diagnosis by the case of tubular pregnancy reported in April by Dr. JACKSON, and which occurred under the care of Dr. Brooks, of the State Alms-House at Monson—(See *Society Records*, Vol. III., p. 102).

[It will be seen in the cases subsequently referred to by Dr. Jackson, and following that report, that this is the second instance in which the practitioner was materially aided in arriving at a correct diagnosis, by the previous report of a similar case; a fact illustrative, as Dr. Jackson remarks, of the practical importance and benefit to the profession, of medical associations.—SECRETARY.]

DEC. 14th.—*Veratrum Viride; its Influence in reducing Arterial Excitement.* Dr. COALE remarked that he had tried this remedy with marked success in several instances, and was disposed to attach to it a high value in certain cases attended with great arterial excitement. He thought it superior to digitalis, inasmuch as it is more reliable.

He had used it with great benefit during the past year in one case of pleurisy, two of pneumonia, two of phthisis, and one of disease of the heart; also in a case of great irritability of the heart. In repeated instances the pulse was reduced from 100 to its normal standard. The preparation he had employed was the fluid extract, of which he gave in the dose of from six to nine drops.

In one of the two cases of pneumonia alluded to, that of a child, one or two drops were added to the cough mixture, adding much to its efficacy.

In reply to Dr. CABOT, Dr. C. stated that this medicine produced no noticeable effect upon the urinary organs.

Dr. HOOKER said that he had employed this remedy in cases of acute rheumatism, accompanied by great arterial excitement, with much relief to the patient, and with the effect, in some cases, of shortening the duration of the disease.

DEC. 14th.—*Bronzed Skin; Atrophy of the Supra-renal Capsules.*—Dr. HODGES said that a subject had been received for the dissecting-room, from one of the public institutions, which presented a very striking discoloration of the skin, at once suggesting the melasma Addisonii. The fore arms and the genitals were the most strongly marked. The spots were irregular but distinct in outline, reminding one of the changes sometimes observed in the negro. The skin of the face, legs and abdomen was also discolored, but in a less degree. The surface of the skin was natural, not having a scaly or furfuraceous appearance. There was an old reducible hernia on the right side.

On examination, no disease was found, to account for his death. The kidneys were healthy; the capsules of half their normal size, the right weighing 36, and the left 44, grains. Their appearance was certainly not that usually noticed in dissecting-room subjects; although it cannot be said that they were diseased.

With regard to the previous history of the person, Dr. H. stated that he was from the country, and aged about 75. He was registered in the books of the institution as "insane." He was never admitted to the Hospital, as he complained of nothing but debility; but was put into the "old man's" ward, so called, and allowed to lie in bed

when so inclined. He died, suddenly, at the end of one week after his admission to the institution.

Dr. H. remarked that debility and cerebral disturbance were the two most marked symptoms of bronze disease, and regretted that the symptoms of death in this case were not recorded.

Dec. 28th.—*Bronzed Skin; the Supra-renal Capsules apparently normal.*—Dr. Hodges showed the skin of the scrotum, the supra-renal capsules, and portions of the peritoneum, from a dissecting-room subject. The case was one of discoloration of the skin, similar to that above reported by Dr. H. The discoloration was not so marked as in the previous instance, except of the skin about the genitals, where it was very striking. About the face, arms and neck, it was also sufficiently marked to at once attract attention.

The subject was considered an old man at the institution from which he came, but, with the exception of gray hair and baldness, there were none of the characteristics usually noticed in old subjects. The teeth were sound; the muscles remarkably well developed and free from fat; the skin was unwrinkled, and the subject was considered a remarkably good one. Death was said to have resulted from "old age and general debility;" there being no evidence of any disease.

On examination, the viscera were found sufficiently natural, and the supra-renal capsules healthy. The discoloration of the serous surfaces figured by Addison, was well shown upon the peritoneum; the mesentery, appendices epiploicæ of the sigmoid flexure, and some parts of the peritoneum covering the anterior wall of the abdomen, being well sprinkled with black specks not unlike "fly-blows."

Dec. 28th.—*Melanotic Growths upon a discolored patch of Skin.*—Dr. Jackson showed the specimen and gave the following account of the case, which he had received from Dr. Wm. Mack, of Salem.

The patient was a tailor, aged 44, and of sufficiently good general health. From his earliest recollection, and probably from birth, he has had a very defined, lozenge-shaped, brown patch of skin, equal in extent to about ten square inches, upon the lower front part of the abdomen on the left side. The color of the patch was not perfectly uniform, but somewhat mottled; being quite dark near the edges. In every respect, excepting the color and a greater sensitiveness to friction, this portion of skin seemed healthy; being neither thickened, rough, hairy, adherent to the parts beneath, nor the seat of any abnormal sensation.

About eight months ago, some irritation came on in the discolored patch, in consequence, as the patient thinks, of rubbing it somewhat hard after bathing; and he could feel some small masses in it, which gradually formed prominent, rounded, button-shaped tumors, the edges projecting over the base. Up to the time of the removal of the diseased patch, there had been no pain nor uncomfortable sensation in it—except such as would be accounted for by the friction of the clothes, &c. About a fortnight ago, an enlarged inguinal gland was discovered.

The patient consulted his physician, Dr. Cox, in regard to his case last April; and for six weeks various local applications were used; *but* [illegible]uly nothing has been done, except that the patient has him-

self removed five of the tumors by ligature, they having become so prominent as to annoy him. About two and a half weeks ago, Dr. C. snipped off a sixth tumor of the size of a horse-chestnut, that had been partially cut through by ligature, and which occupied the locality of the larger tumor in the specimen. A small artery was tied after this operation; and with this exception, there had not been the least disposition to hæmorrhage. The scars left after the removal of the tumors were somewhat lighter, in regard to color, than the surrounding surface; the tumors arising from portions only, and not from the whole surface of the discolored patch.

The diseased part was easily removed. Two small vessels only were tied; and about ten days after the operation, as Dr. J. was informed by Dr. Mack, the wound was nearly healed, and almost entirely by the first intention.

The specimen, which was in a fresh state, showed portions of the originally discolored patch that had not yet become diseased. Other portions were more or less rough from the disease; and there arose from the surface one dark brown, well characterized, melanotic mass, 1½ by 2 inches in diameter and half an inch in thickness. Disease apparently confined to the skin. Surface inflamed, as is shown by a pretty extensive exudation of lymph.

Dr. J. said that, though Mr. Paget remarks in his *Surgical Pathology* (p. 610) that "the proneness of melanoid cancers to grow first in or beneath pigmentary moles is very evident," he was not aware that a case had been observed here before. And in reference to any connection that may be supposed to exist between the choroid coat of the eye and melanosis, he showed, at a subsequent meeting of the Society, one of Cruveilhier's plates (*Anat. Path.*, liv. xxxix., pl. v.), in which was figured a large mass of melanosis, immediately about the globe of the eye, the interior of this last being entirely free from the disease. Two cases of melanosis, also, had occurred here, in which the tumor grew from the very front of the eye, and as if from the cornea; the organ itself, in each case, being otherwise apparently healthy.

Dec. 28th.—*The Influence of the Placenta upon the Development of the Uterus during Pregnancy.* The following is an abstract of the paper read by Dr. Read.

The theory of uterine development as recognized at the present day, is, that the uterus begins to enlarge in consequence of pregnancy, at the fundus—that the body is next implicated, then the cervical portion, and finally the cervix itself; that this development goes on in the fundus exclusively for five, six or seven months, or even longer, and that after this time, and not till then, the cervix enlarges to form part of the cavity of the womb, while the body of the uterus is undergoing little or no change; that in consequence of this development, the uterus, at the end of gestation, acquires a pyriform shape, the smaller end resting on the pelvic basin. But while a general agreement among authors is noticed as to the plan of this development, the greatest diversity of opinion is to be found as to the details of the process. The absence of all proof as to what kind of presentation was found in the particular cases which have been the groundwork of the present theory, renders the result of doubtful value. That the uterus enlarges, is not to be doubted; but that it expands in

one part before another, in obedience to an organic law, may be questioned. Instead of being in all cases of one fixed determinate shape, we find it different in different pregnancies, varying according to the presentation: when the presentation is natural, it is pyriform; when the breech presents, it is almost globular; when the presentation is transverse, its long diameter is at right angles to the axis of the pelvis—showing quite conclusively that its shape is dependent on the position of the contained fœtus. It is not symmetrical, either, at the end of pregnancy. More of its circumference is found behind the Fallopian tubes than in front, and the tubes have moved one third of the way down from the fundus, proving that a greater expansion has taken place in one direction than another. The fact that the uterus rises in the cavity of the pelvis as the gestation proceeds, is no proof that the fundus is then enlarging, for no matter at what point the uterus begins to enlarge, it must, for want of space in any other direction, find room for its increasing size in the abdominal cavity. The changes in the neck, which have been relied on to prove that the body of the uterus developes first, are not to be depended on, except in primiparæ, and even in them but little reliance can be placed on them as certain indications of changes going on in the uterus. Authors disagree most widely as to the time when the different parts of the uterus begin to partake in the development of its cavity, and allow a latitude of three months for the commencement of the development of the cervical portion. Under these circumstances, we may assume that their opinions are not based upon sound premises.

The argument drawn from the assumed isochronic development of the fundus and placenta is fallacious; for all the facts that can be brought to bear upon this subject at all, go to prove that the fundus is not the usual location of the placenta. The assumption of Velpeau, that the placenta grows as the uterine walls with which it is in contact, seems to be hardly in accordance with analogy, which points to the fœtus rather than the uterus as the measure of the capacity of the placenta. The statement of Dr. Carpenter, that the placenta increases in accordance with the growth of the ovum, is refuted by data on record. There is not the least correspondence between the weight of the child and that of the placenta. If we test the theory by what we observe in cases of placenta prævia, we find it cannot satisfactorily explain the exceptional cases. According to theory, the greater the surface of the placenta exposed to the changes going on in the neck, the more certainly ought the hæmorrhage to come on. According to fact, it is the reverse in very many instances. Of this Levret, Cazeaux, Mr. Ed. Rigby, Mr. Doherty and others have taken notice, and offered various explanations. None of them can stand the test of criticism. We do not expect a rule to be absolute, but it should provide for exceptions, which are not opposed in principle to the rule itself. If they occur, and cannot be explained without resorting to a construction which nullifies the rule, the rule cannot be a good one. In the cases under consideration, this seems to be the result of the application of the present theory of uterine development to the phenomena which appear in placenta prævia; the principle upon which the existing theory is founded being, that the development proceeds in a uniform direction, from a fixed point, irrespective of the position of the placenta, and at an equally independent rate. This has been

shown to be not in conformity with the data in our possession. What seems to be required is a theory which allows the development to commence at any portion of the uterine walls, and to proceed, not according to arbitrary laws, but in accordance with the ordinary physiological laws which are constantly at work in living bodies. This may be stated in the following terms.

The attachment of the placenta to any portion of the uterine walls causes a development at that place, which proceeds, *pari passu*, till, the limits of growth in the placenta having been reached, the enlargement is continued and kept up by the pressure constantly exerted on the uterine walls, by the growing contents, till the time of parturition. That is to say, at whatever point the radicles of the placenta first attach themselves after their issue from the Fallopian tubes, at that point the development of the uterus commences, and from that point it spreads as from a common centre, and takes shape according to the position of the contained fœtus.

By this theory, those cases where the placenta is implanted on the cervix, and particularly those where it is fixed over the os uteri, centre for centre, are easily accounted for, and an inference may be drawn that the more the presentation, the less the hæmorrhage; and the less the presentation, the more the hæmorrhage, which is in accordance with the general result of observed cases. In short, it is believed that by adopting this theory, all the phenomena which appear in the course of pregnancy when placenta prævia exists, and which depend, for their cause, upon the changes going on in the uterine walls, may be clearly explained and accounted for by a much simpler mechanism than by the one already accepted and recognized. And while it does not militate in principle with recognized physiological laws, it so applies them to the phenomena which appear as the result of impregnation as to leave fewer exceptional cases, and those even not different in character from what are constantly occurring in normal pregnancies.

Dec. 28th.—*Cancerous Disease.* Dr. Jackson presented the specimens and reported the case, which occurred in the practice of Dr. M. S. Perry.

Mrs. S., 50 years of age, delicate and dyspeptic, was first seen in March, 1857, for a tumor of the forearm, midway between the elbow and wrist. It had existed for eleven years. It had grown rapidly within the previous four months, and been painful during the last two weeks of that time. It was superficial, movable, elastic, and about the size of a hen's egg. It was removed by Dr. Hodges; and, upon section, presented the gross appearances of encephaloid; a microscopic examination by Drs. Ellis and Shaw gave also unquestionable evidence of its malignant character. Two or three weeks after the operation, she began to have nausea and loss of appetite and strength, with occasional attacks of pain in the right hypochondrium, and subsequently vomiting. In August she began to raise blood, coughing just enough to bring it up. For about two months before her death, she had jaundice, and a tumor was detected in the epigastrium, at first to the right of, and afterward extending across, the median line. The smallest quantity of food, or liquid of the simplest character, taken into the stomach, caused intense suffering. In July a tumor appeared between the cicatrix of the one removed and the wrist. She kept her

bed for the last three or four months of her life. The hæmoptysis, though never very great in amount, continued till her death, which occurred Dec. 24th, 1857.

*Sectio Cadaveris.*—There were found in the lungs three or four tumors, rounded, defined, opaque, rather soft, deeply stained with bile, and of a well-marked encephaloid appearance, but, on microscopic examination by Dr. Ellis, showing none of the appearances usually observed in cancer. A tumor, of the size of a hazelnut, of apparently the same character as those found in the lungs, was also found just below the thyroid gland.

The right extremity of the pancreas formed a very soft tumor, about two inches in diameter, and on cutting it open a cavity was found, filled with something like grumous blood, but without coagula. On sponging this out, the interior of the cavity was rough, but on careful examination nothing of an encephaloid look was found about it. At the left extremity of the pancreas, however, encephaloid was commencing. The bile ducts were much distended, as far as the tumor, and in the gall-bladder were two calculi, of an ovoid form, quite compact, and about as large as the top of the fore-finger. One of the calculi was considerably worn at each extremity, and the other at one only; from which a change of position in the first, at some former time, may be inferred. The common duct was so firmly compressed, where it passed over the tumor, that on being cut into, air could not be forced through from above, though with much difficulty it could be from below; on being laid open, this duct was found healthy.

Other organs not remarkable.

The interesting points in this case are—the unusual situation of the primary disease, and its long duration for a case of encephaloid; the recurrence of the disease below its original seat, in regard to the course of the lymphatics; the effusion into the head of the pancreas when the organ seemed healthy about it, and when no tendency to hæmorrhage was shown elsewhere; lastly, and particularly, the fact that the tumors in the lungs did not show the microscopic appearances of cancer, though otherwise there was no question of the nature of the disease.

Dec. 28th.—*Knots in the Umbilical Cord.* Dr. Coale showed the specimen. There were two knots, about four inches apart; one being double, or what is sometimes called a figure-of-8 knot, and which is extremely rare.

Dr. Storer supposed these knots to be produced by the motions of the fœtus, and mentioned, in connection, a case which occurred some time since, in which the patient, seven or eight months advanced in pregnancy, being under a bed for some purpose, was suddenly surprised in that position, and hastily backing out, immediately had the usual symptoms of a dead child, of which she was delivered ten days after. A knot was found in the cord, so tightly drawn as to fully account for the death of the child by impeding the circulation. He also alluded to a case, reported by Dr. Bowditch, where there were three knots. He remarked that the cord in these cases is generally unusually long, and hence the greater liability to such an accident from the motions of the fœtus.

JAN. 11th, 1858.—*Cancer of the Breast, from a nursing Woman.*—Dr. J. M. WARREN showed the specimen, which displayed the ducts filled with milk.

Dr. W. said that the patient labored under an accumulation of misfortunes seldom falling to the lot of one person. She had been confined to her bed for a fortnight, from the excessive pain and constitutional disturbance of the cancer. She was in a starving condition. She was nursing one child, and six months gone with another. Her husband was in a consumption; and the day after she entered the Hospital her eldest son was brought in with a fractured leg. The operation was, in a great measure, a palliative one, and thus far had afforded her entire relief. Some facts of this woman's history are interesting, and, at his request, Mr. Stickney, the surgical house pupil, had put them together.

Catherine McKenly, aged 42; is of large frame, and says she was strong and robust, and never had a sick day until the present time. Had been in America 23 years. Came over from Ireland when 19 years old, and during her nineteenth year menstruated for the first time, the periods recurring regularly up to her first pregnancy. Was married four years after her arrival in this country, at the age of 23, and, in eleven months after, gave birth to twins. Had been married nineteen years in June next; had borne fifteen children, and is now six months advanced in pregnancy with her sixteenth.

The first pair of twins she nursed two and a half years, and, in about a week after, gave birth to another pair. These she nursed at once, and continued to do so for about the same length of time (two and a half years). Three of these children are now dead. The fourth, who was the most weakly, and of the first pair, is still alive, and now in Ward 29, on account of a fracture of the left leg.

She does not remember that she has ever, at any time, had her breasts entirely free from milk, since the first birth; and at this moment she has a small quantity in the left breast—having weaned her babe but two days before she entered the Hospital. Says she has invariably nursed each child till the birth of its successor. Does not recollect having menstruated but two or three times, in all, since being married.

Eleven children have died, and the four who are living are not very robust, probably from surrounding circumstances. Three died from hydrocephalus; one, from being scalded with water; one, from measles. The cause of death of the other six, she cannot state.

During all this time, she has obtained a living by daily work, from home; frequently paying another woman twenty-five cents to care for her child till her return at night.

JAN. 11th.—*A case of "Acephalous Fœtus," in which some of the Abdominal Organs were found in the Posterior Mediastinum, and a portion of Intestine had passed through an opening in the bodies of the Vertebræ so as to appear upon the back.* Dr. JACKSON showed the specimen, which he had received from Dr. Galloupe, of Lynn, and which presented, for the most part, the external appearances usually seen in this form of monstrosity. In consequence, however, of the great extent to which the spine was affected, there was an entire absence of the neck. One of the fingers was strongly and permanently flexed, and some of the

others were perhaps similarly affected. Length of the fœtus 12½ inches, and weight about 2½ pounds.

In the thickened mass of pia mater, and toward the left frontal bone, there was something like a serous cyst, one third of an inch or more in diameter, and near it a trace of brain. In the place of the pituitary gland was a pretty distinct, rounded and rather firm body, about the size of the "gland," and which, as Dr. J. remarked, he had several times found where there was no other trace of brain. The spinal marrow terminated, apparently, in the membranes, and rather abruptly immediately above where the integument of the back ceased to be formed. The extension of something like cuticle, over the arachnoid surface, was seen as usual.

In the roof of the mouth there was the appearance, so often seen, that would lead one to think of fissure of the palate; and in the uvula there was a trace of the bifid condition that is not unfrequently complete in these monstrosities. The par vagum nerve was of full size, on each side, as it usually is, however completely wanting the brain may be; and the other nerves in the neck and thorax were sufficiently developed, so far as examined. The lungs were small, and very imperfectly divided into lobes. Heart well; superior vena cava not found.

The posterior mediastinum seemed to be the seat of a large, elongated tumor; and, on dissection, was found to contain the stomach, the whole of the small intestine, excepting the portion that had passed through the vertebræ, the pancreas and the spleen, with a little supernumerary addition to this last. The œsophagus was large, and, of course, quite short. The stomach was of an elongated form, and about two inches in length; it received the bile-duct near one extremity, and the intestine arose from the other, near the opening of the œsophagus. The small intestine was about thirteen inches in length; and the portion that had passed through the opening in the vertebræ, appeared upon the back, and just above where the integuments ceased, as a mass about as large as the top of the thumb; this portion not having been measured after it was withdrawn. A diverticulum arose from the protruded portion of intestine, four inches from the stomach, and one inch in length. Before dissection, the protruded intestine was invested by a membrane about as thick as the spinal theca would have been, and to which it was somewhat adherent; there were, also, close and pretty general adhesions of the intestine within the mediastinum, though the serous surface about the stomach was sufficiently free.

The diaphragm was fully developed, there being a small opening only near the spine, through which the intestine passed. Renal capsules exceedingly small, as is usual in the acephalous fœtus. Large intestine about eight inches in length. Kidneys and pelvic organs well. Testicles in the groin.

The skeleton having been partially prepared, the following appearances were observed. Cranium as usual in an acephalous fœtus (see Catalogue of Society's Cabinet, Nos. 766–74). Wings of the vertebræ separated to the eleventh dorsal, inclusive. Antero-posterior curvature of the spine such that the two halves of the posterior portion of the occiput rest directly upon the wings of the sixth dorsal vertebra. Bodies of the three last dorsal vertebræ well formed; that of the ninth triangular, with the apex upward. The bodies of the other ver-

tebræ are formed in about equal lateral halves, quite regularly in the dorsal portion, but in the cervical they are more imperfectly developed. These lateral halves are then separated, and an opening is the result, which is nearly half an inch in diameter. About in the situation of the first vertebra the two wings seemed to be connected in the recent state by a narrow cartilage.

The following facts in regard to the case were communicated by Dr. Galloupe. Parents belong to the laboring class. The mother had had two children previously, and had aborted at the third month, with twins; all well formed. Motions of the child felt in the last as in other pregnancies. Labor at 7½ months. Quantity of liquor amnii *very* large. When first seen, the cord was hanging from the vagina, and without pulsation. Knee presentation. Child stillborn.

"The following is the account given by the mother of the *cause* of the deformity of her child.

"She went into the yard (she then lived in the State of Illinois) to pick up some chips; on stooping down for that purpose, she saw a snake at her feet, with head erect, and making a hissing noise peculiar to that animal. She uttered a scream, placed both hands on her chest, and ran into the house, where she fainted. The *instant* she saw the snake, she thought her child was doomed to be marked with the reptile on the breast, where she placed her hands. This idea has constantly been in her mind since, and could not be got rid of; she *has tried* frequently to forget it, or disbelieve it, but did not succeed in doing either. She sometimes dreamed of snakes, and on one occasion dreamed her child was born with the lower half like a snake, and the rest natural. Some days succeeding her first fright, she saw the snake again, but it does not appear that her *fears* were changed in any way by this circumstance. The reptile was then killed, and it proved to be (what is there called) a *racer*, about four feet long. Not long after this, she saw, and was much frightened by, a rattlesnake, but her feelings and fears were not modified by this fact.

"The idea that her child would be 'marked,' as above mentioned, has caused her much anxiety, and she *often* spoke of it to friends, and especially her mother."

In connection with this case, two of Cruveilhier's plates (*Anat. Path.*, liv. xix.) were shown, in which is figured a protrusion of some of the abdominal organs into the left pleural cavity, and a bifid condition of the bodies of the vertebræ, but none of the organs had passed through the opening thus formed; nor had Dr. J. found any case in the work of G. St. Hilaire (*Anom. de l'Organisation*) like the one above reported.

Dr. J. remarked upon the statement by Cruveilhier that, in the case described by him, there were found no traces of the posterior portion of the occiput. The head was drawn very far backward, the parietal bones were largely developed, and there was, of course, very little room for the posterior portion of the occiput. There were, however, two flat bones, about the size of the finger-nail, one upon each side, and connected with the lateral portions of the occiput, the temporal bones and the wings of the vertebræ. These bones had not then been designated by Cruveilhier (pl. v., fig. 5) and Dr. J. felt quite sure that any one who would examine the skeletons of the monstrosities in the Society's collection, would be convinced that they were the bones in question.

JAN. 11th.—*Fluid from a Hydrocele containing Spermatozoa.* Dr. ELLIS showed the specimen, which was from a patient of Dr. Cabot. The fluid was of a milky appearance, and the quantity of spermatozoa quite large. Dr. E. supposed their presence in this fluid to be owing to dilatation and rupture of the seminiferous ducts. Dr. CABOT had in two other instances found spermatozoa in the fluid of a hydrocele—this having in both cases the milky appearance so noticeable in the present specimen.

JAN. 11th.—*Stellate Crack of the Radius at the Wrist.* Dr. H. J. BIGELOW showed the carpal extremity of a radius, which presented on its articulating surface a star-shaped crack, without displacement. Slight corresponding cracks were seen in the shaft for more than an inch. The patient had entered the Hospital, under Dr. B.'s care, for other injuries, which ultimately proved fatal. At first, complaint was made only of lameness at the wrist, like that from the effect of sprain; but at the end of several days the joint exhibited swelling and tenderness, which, from its persistence, led Dr. B. to diagnosticate a stellate crack in the articulating extremity of the radius, as a probable result of the fall, he having met with a similar case two years ago—when a patient with the same symptoms had died of other injuries and exhibited a crack in the same place, but less extended than this. Dr. B. remarked that the bones of the wrist doubtless acted as a wedge to spread the corresponding hollow of the radial extremity—and that this specimen would explain the persistence of some cases of sprained wrist.

JAN. 25th.—*Vesical Calculus.* This specimen was presented some time since to the Society by Dr. J. PORTER, Jr., of North Brookfield, through Dr. GOULD, who read the accompanying history of the case.

The patient, F. C., a resident of Worcester County, was adopted by J. S. as his son when he was three weeks old. His mother says he was always troubled in passing his urine, more or less, from early infancy. The first time he passed any blood in it was at the age of 9 years. He suffered great pain for several days, had febrile symptoms, and was unable to sit up for eight or ten days. For two or three years, he had similar attacks, two or three times in each year. These attacks afterward grew more severe and more frequent, occurring as often as every month till the first week in May, 1856, when he took his bed and there remained confined almost constantly until the time of his death, which took place June 21st, 1857, he being at this time 27 years old. He never walked without assistance, even from the bed to the chair, and was not free from suffering so much as a whole day at a time during the last year of his life. There was the greatest difficulty in passing urine; sometimes he would remain on his hands and knees for two hours, before being able to void a drop. It began to pass involuntarily about the first of September, 1856, and continued to do so till he died. Before the involuntary discharge of the urine, in his

agony he would frequently seize the end of the penis and grasp it so hard as to cause the blood to flow freely. For the last five years of his life, he could never sit erect, but always leaned forward and walked in a bent position—placing his feet on the ground with the greatest care. He could walk much better than he could ride.

Dr. Porter attended him after he was confined to his bed, and, though fully aware of the presence of the calculus, could never persuade himself that an operation would be justifiable, on account of the wasted strength of the sufferer. Sleep, and relief from suffering, were obtained by means of opiates during the last two months of his life. The bowels were moved daily, but he steadily lost flesh, and at death emaciation was extreme.

*Sectio Cadaveris.*—The examination was made twenty-four hours after death. Upon opening the abdomen, the mesenteric glands were found enlarged, and the omentum, intestines, &c., surrounding the bladder, in a condition evidently the result of inflammation. The bladder appeared very much contracted and diminished in size, and on cutting into it the coats were greatly thickened. Within its cavity a pear-shaped stone was found, with its smaller extremity crowded into the neck of the bladder, and the base in contact with the mucous membrane, which was very red and much of it ulcerated away. The stone measured, at the time of its removal, 3½ inches in length and 1¾ inches in width, and weighed 3½ ounces.

The left kidney was somewhat diminished in size, and contained, in its cones, small deposits, of apparently the same material that composed the stone—these being in thin layers, about half the thickness of a wafer, with a little secretion of pus underneath. The deposit seemed like a crust on the inside of the cone, but not covering the whole surface, a thin scale appearing here and there; some not a line in surface, others a quarter of an inch. Under all these deposits, pus was found.

Since the specimen was presented, it has been sawed by Dr. Jackson, who has given the following description of its appearances:—Externally, it is generally rather rough, and upon one side of the large extremity quite so; it is brown toward the small extremity, but otherwise light colored. Although quite hard while being sawn, the cut surface presented a somewhat laminated, earthy structure, being in some parts rather compact; also being of a light color.

In the centre of the stone was found a nucleus, about 2¼ inches in length and averaging not far from a quarter of an inch in diameter, which being evidently the stem of some plant, was submitted to the accomplished botanist, Mr. Charles J. Sprague, for examination.

About this foreign body exists a cavity of some size, of which the parietes are quite crumbling. There is very little crystalline appearance. The weight of the stone is at present two and a half ounces, its length and diameter falling a little short of the original measurements. The accompanying cut represents very accurately the size and appearance of the longitudinal section, with the nucleus in its cavity in the centre.

On a chemical analysis, by Dr. Bacon, the calculus proved to be "of the fusible species; the layers deposited around the foreign substance which formed the nucleus, being composed of phosphate of lime and triple phosphate, with considerable urate of ammonia, and a little carbonate of lime and animal matter."

The nucleus, after a careful examination by Mr. Sprague, proved to be a portion of the stem of the *Archangelica atropurpurea*, as will appear from the following extract from his note to Dr. Jackson:—"At first its outward resemblance reminded me of a grape-vine twig; but I could find, on microscopical examination, no trace of the wood and medullary rays very evident in the grape. On closer examination, I noticed that the hollow portion exhibited on the walls the loose pithy appearance of herbaceous stems of annual growth, or of the larger grasses.

"Dr. Bacon, with whom I left the specimen, after a casual glance at it, suggested the resemblance between the outer striate portion, and the striate and sulcate stems of umbellifers. I then seized upon my first leisure moments, to make sections of some of the larger umbelliferous plants, and naturally chose the two principal ones which are found in our meadows and thickets. Upon comparing sections of the calculus with those of the great angelica, I found that the resemblance was very great, and, allowing for the effects of the urine upon the softer portions of the stem, I was convinced of the identity of the specimens. The plant, then, is the *Archangelica atropurpurea*, which from its even, smooth exterior, would naturally attract a boy on such an unnatural search."

Jan. 25th.—*Asphyxia from Imperfect Combustion of Gas.* Dr. Gay reported the case, which was referred to a special committee for investigation. Their report may be found in the Supplement.

Jan. 25th.—*Vesical Calculus.* Case reported by Dr. H. J. Bigelow.

The patient, J. J. B., æt. 26, merchant, single, entered the Hospital November 5th, 1857. He was from the town of Waldoboro', in Maine. He had had unequivocal symptoms of stone for three years. On the 14th of November, having been etherized, the lateral operation was performed by Dr. Bigelow, and a calculus of large size extracted, being in form a flattened ovoid, and measuring, in length, two and three quarter inches; in breadth, two and one eighth inches; and in thickness, one and three quarter inches; these measurements being pretty nearly preserved in the accompanying cut. The weight was four ounces and two scruples. The patient, who was very much emaciated at the time of the operation, gained, in six weeks, twenty-five pounds, and was discharged well January 4th, 1858.

The following is the analysis of the calculus, as given by Dr. Bacon. "The powder obtain[illegible] [illegible]ving the calculus was found to consist of

phosphate of lime, with considerable triple phosphate, and small proportions of carbonate of lime, oxalate of lime and animal matter. Portions of the darker-colored central layers, and of the thin reddish crust which partially covers the exterior, were separately analyzed with the same result."

The two following cases of vesical calculus were reported to the Society at the first meeting in May last. The first case was reported by Dr. Cabot. The patient, W. J. S., aged three years and ten months, entered the Hospital May 9th. Born in New York, his parents removed to Boston when he was three months old, where he had since resided. Pain and difficulty in micturition were first noticed more than a year before. These symptoms had gradually increased. The patient was etherized, and the bi-lateral operation performed by Dr. Cabot. The calculus measured three inches in its long circumference, about an inch and a half in its short circumference, and resembled an elongated sea-pebble, with rounded ends, its surface being quite smooth.

Dr. Bacon furnished the following analysis. "The powder from a section of the calculus is composed chiefly of urate of ammonia, with triple phosphate and phosphate of lime."

The second case was reported by Dr. Hodges, who also showed the specimen.

A. L., 6½ years old, having always resided in Boston and drunk Cochituate water, had had symptoms of stone for four years. Dr. H. performed the lateral operation, April 20th, 1857. The operation was followed by no symptoms worthy of note. The urine did not pass wholly through the urethra until the 9th of May, at which time the wound was fairly cicatrized. On the 26th, without assignable cause, the wound opened, and urine began to pass through a fistulous orifice, which, by report, was preceded by a little boil. There was no surrounding inflammation. Although the urine passed freely by the urethra, and only by drops through the fistula, it was not until June 9th that this was obliterated by repeated applications of nitrate of silver. The stone was oval and flattened, and was covered, externally, with brilliant crystals of oxalate of lime. Its nucleus was oxalate of lime, and between this and the superficial deposit of the same, the calculus consisted of triple phosphate. Its weight was eighty-two grains.

The following is the result of Dr. BACON's analysis. Dr. B. stated that the powder removed in sawing the calculus, and a few crystals from the outside, were used for analysis. The constituents are—oxalate of lime, phosphate of lime, triple phosphate and carbonate of lime; with small proportions of urate of ammonia, urate of soda and uric acid. Comparing the analysis with the appearance of the section, it is evident that the nucleus and several surrounding layers consist of oxalate of lime chiefly. The outer layers are mostly composed of earthy phosphates. Small crystals of oxalate of lime cover the exterior. This deposition of oxalate of lime upon earthy phosphates is an interesting point in the structure of the calculus.

[It will be noticed that, in the two latter cases, the patients were residents of Boston.—SEC'Y.]

JAN. 25th.—*Compound Fracture and Dislocation of the Astragalus.* Case reported by Dr. GAY.

The patient was a man aged 30. Six weeks ago, he fell from his wagon, in consequence of the slipping of the seat. He did not know how he struck. He was unable to rise, and complained of great pain in the right foot and ankle. He was carried home, where Dr. Gay soon after saw him. There was at this time pain and swelling about the ankle, the foot was bent forcibly inward, as in varus, the toes pointing downward. On pressure, slight crepitus was felt about the lower extremity of the tibia, and the internal malleolus proved to be broken. In front, on the dorsum of the foot, there was a depression. The outside of the foot was more swollen, so as to render the examination somewhat difficult. Near the extremity of the external malleolus was an opening about the size of a pea, from which blood issued. The fibula was traced throughout its whole extent, and found to be uninjured. Below the external malleolus, and even external to it, was a hard, firm swelling, which was evidently of bone. A smooth surface, as if an articulating one, could be felt, and also a sharp irregularly rough one, as if from a fracture. On further examination, it was fully made out to be a fractured portion of bone; and as the whole of the tibia and fibula could be sufficiently traced, and as a cavity could be felt in front of the lower anterior extremity of the tibia, it was concluded to be a portion of the astragalus. There was more flexion and extension of the foot than could have been expected. Efforts were made to replace the fractured portion, but without changing it in the least. It was then decided, as the integuments were stretched and thin, to operate for its removal.

An incision was accordingly made over the sharp edge of the fractured portion, and after some difficulty it was removed. The fracture was vertical, and the fragment consisted of about two thirds of the body of the astragalus; comprising the whole of the surface articulating with the fibula, two thirds of that articulating with the tibia, and nearly the whole of that articulating with the os calcis—being in size about one inch in every direction. It was thrown outward and forward, with its internal edge turned upward.

The patient took opiates at night, and continued comfortable for several days. A week after, erysipelas attacked the dorsum of the foot; the day following, there was much pain. The disease extended

to the external malleolus, the ankle being swollen at this point to the size of a hen's egg. An opening was made, which was followed by a discharge of pus. At no time was the pulse above 100. A fortnight later, erysipelas again made its appearance on the outer side of the leg; matter was formed, which discharged itself through the wound. Since this time the patient has gained; his appetite is good, tongue clean and bowels regular. No necrosed bone has been felt. Dr. Gay was of the opinion that as a portion of the articulating surface remained, a degree of motion of the joint would be preserved.

JAN. 25th.—*Inoculation of Secondary Syphilis.*—Case reported by Dr. W. E. TOWNSEND.

Mrs. W., a respectable woman, of fair complexion, always enjoying good health, whose family Dr. T. had attended for several years, took a child five days old to nurse, Jan. 10th, 1856; observing that it had an eruption on its skin, she confined it to one breast, reserving the other for her own infant. This eruption, she said, resembled the chicken pox; there was no soreness or discharge from the mouth or nose; the child nursed well and throve till about the last of March, when the eruption, which had gradually grown more livid and distinct, formed scabs, and these shortly falling off, left ulcers in their place. Three weeks before its death a sore appeared in the nose, and a discharge ran from its interior; still there was no difficulty in the mouth, which was several times examined by the nurse in search of swollen gums, neither was her nipple at any time inflamed. The child growing worse and more uneasy, she permitted it to lie all night at the breast. After ten days, feeling much irritation there, she frequently rubbed her breast above the nipple, and, finally accidentally scratched it about an inch above that point. This scratch continued to be exposed to the secretions from the nose, and on the 18th of May, just before the child died, she noticed a pimple, with a hard scab on it, at that spot. This, being painful, was poulticed; when the scab dropped off it left a sore, which increased till it became a circular ulcer an inch in diameter, with everted edges, presenting the appearance of ordinary syphilis, so that two medical friends of experience who saw it, at different times, without knowing its history, said "that is a venereal sore in a curious place." Under constitutional treatment this healed in three weeks, and was followed in three more by a copper-colored eruption and sore throat, which last continued about a month, and finally yielded after the continued use of bichloride of mercury. The mother of the child, fearing that it would be returned to her, denied that she had ever had any syphilitic disease; but her character was bad, and the woman with whom she boarded, said, that when she was about three months pregnant, she was confined to her bed for seven weeks with syphilis.

Is there any evidence in this case that the child had a primary chancre in its mouth or nose? If it had, there was no sign or suspicion of it for three months, during all of which time it nursed without trouble and throve well, the nurse not having, all that time, any soreness of her breast or nipple.

What was the character of the sore with which she was at last inoculated? It looked, to the eyes of three medical men accustomed to the disease, like a venereal ulcer, and was followed, after it healed up, by well-marked constitutional symptoms.

With regard to this case, Dr. H. J. Bigelow expressed a doubt as to the character of the ulcer upon the breast, stating that the probabilities were, in his opinion, against its being of a syphilitic nature.

Dr. Cabot mentioned a case in which a child inoculated the nurse, who afterward had secondary symptoms. He supposed the child to have had a chancre, although he did not verify his opinion by an examination. The child afterward died. He had seen a child with a true chancre in the mouth, and thought its existence in this part easily explained.

Dr. Bethune thought that a secondary ulcer may take on the appearance and character of chancre.

Dr. Bigelow replied that a secondary ulcer may, in some instances, take a retrograde course and put on the appearance of chancre, but he thought this due to collateral circumstances.

Dr. Bethune alluded to the case of a gentleman whom he met in Europe, who had a scar upon the forehead, of the size of a fourpence, and depressed—caused, as he stated, by a chancre.

Dr. Bigelow supposed this to be a tertiary ulcer, affecting the cellular tissue.

Dr. Gay mentioned a case that occurred at the Hospital, which he thought somewhat resembled that reported by Dr. Townsend.

The patient, aged 14, entered the Hospital, October 6, 1857. The history of the case, as given by the mother, was as follows:—

Nine years ago, she (the mother) nursed a woman who had sore nipples, and who afterward proved to be laboring under syphilis. She and her little daughter drew the milk. A week after, they both had sore mouths, and in a short time the throat of the mother became so much affected that she was able to swallow only liquids. She got well under the use of mercury, but had several relapses, and in seventeen months entered the Hospital with sore mouth, raised tender spots on the scalp, and a node on each tibia. She was treated with iodide of potash, and in a month discharged, much relieved.

From the time of nursing this woman, the child was always liable to ulcerated sore throat. She always had, she said, "sore mouth" whenever she took cold. Nine months ago, after a severe attack of this trouble, the soft palate became affected, and at the present time the ulceration had so progressed as to have destroyed the uvula and a portion of the velum on either side, leaving a triangular opening, with ragged edges. The anterior pillars were also destroyed. The whole of the soft palate and back of the throat were much inflamed, and on the latter there were whitish patches of ulceration. The nose, especially at its upper part, was much depressed. The cartilage of the septum was perforated, the opening being about the size of a small pea. She spoke as though she had a fissure of the soft palate, and was unable to swallow solid food.

This patient recovered in six or seven weeks, under the use of the hydriodate of potash, tonics, &c. While at the Hospital, a long thin piece of bone, apparently the vomer, came away from the nose.

Dr. Bigelow remarked that this was one of those cases which are necessarily involved in much obscurity. He had this patient at the Hospital, but did not believe her statement, thinking it far more probable, admitting the disease in this case to be of a syphilitic nature, that she inherited this constitutional tendency from her parents, than

that she took the disease in the way suggested. He however did not regard the case as of this nature, but as one of scrofulous lupus.

To illustrate the difficulty of sometimes recognising a chancre, Dr. Gay alluded to the case of a gentleman who had an ulcer upon the end of one of his fingers, and who consulted several surgeons of Boston with regard to it, no two of whom were agreed as to its true character. Dr. Gay told him that it looked like a chancre. Six weeks afterward he went to New York, and while there consulted an eminent practitioner. About this time he had an eruption upon the body which determined the surgeon to regard the case as syphilitic, and he treated it accordingly, giving the bichloride of mercury, and the patient returned home well.

Dr. Bigelow said that he had this patient under treatment for some weeks, and regarded the case as one of scrofulous tubercle; recommending active exercise and travel. He went to New York by his advice, and he believed it quite probable that the change of air and life alone had produced the good effect alluded to.

[With regard to the transmissibility of secondary syphilis, while Ricord and his school maintain that this form of the disease must necessarily be preceded by a primary sore, and is never itself communicable, there is a great and increasing weight of authority, both in this country and in Europe, in support of the theory that secondary syphilis may be, and often is, directly communicated, case after case having been reported which it would seem impossible to explain on any other supposition.

Velpeau, Mr. Porter of Dublin, Dr. Bennett of Edinburgh, Mr. Whitehead and Wilson, Mr. Waller of Prague, Sigmund and Hebra of Vienna, Dr. Buckley of New York, and others, speak unhesitatingly in favor of the latter hypothesis. It will be sufficient to cite the opinions of two eminent clinical professors on this point. Dr. Bennett, in one of his clinical lectures, says of the secondary forms of syphilis, that they are always the result of inoculation; but that they may arise not only from the poison being absorbed directly from a primary sore, but may be communicated by the mother to the fœtus in utero, by the infant to the nurse, and again by the nurse to the infant. (See *London and Edinburgh Journal of Medical Science*, 1852, p. 570.)

Velpeau, at a recent meeting of the French Academy of Medicine (see *New York Medical Times*, February, 1856), stated that he did not hesitate to maintain that all or nearly all the manifestations of secondary syphilis are contagious. He bases his opinion on the general consent of physicians to its truth, and the daily experience of the profession, as well as upon clinical observations, the fact of hereditary transmissibility and the results of inoculation itself.—Sec'y.]

Jan. 25th.—*Large Fibro-nucleated Tumor filling the Left Pleural Cavity. Small growths of the same kind in the Lungs. Ovarian Cyst.*

Dr. Storer remarked that in January, 1856, he reported to the Society the case of a patient 41 years of age, from whose uterus a fibrous tumor, weighing two pounds, was expelled, forty-eight hours after her delivery.

Early in that pregnancy she became considerably exhausted by hæmorrhage, but rallied previous to its completion, and after its termination and the expulsion of the tumor recovered her usual health.

On the 13th of May last, she was again delivered of a large healthy child, and recovered slowly.

Although far from being well, she did not ask for professional aid until October. At that time Dr. S. found her suffering considerably from pain of a pleuritic character in her left side, with some dyspnœa and a frequent, short, harassing cough, together with an inability to lie upon her right side.

Upon examining the chest, the left side was observed to be much enlarged, and the intercostal spaces separated. There was absence of respiration and flatness on percussion throughout the entire side of the chest.

The patient's symptoms gradually became aggravated—particularly the respiration, which compelled her at last to assume the erect posture the greater portion of the time.

She died on the 15th inst. Some days previous to her death, Dr. S. endeavored to persuade her to have the operation of *paracentesis* performed, as holding out the only prospect of relief.

On the morning of her death, Dr. Bowditch saw her in consultation, and coinciding in Dr. Storer's views of her case, made three distinct punctures with a trochar, which were followed by a drop or two only of serum.

*Sectio Cadaveris*, by Dr. Ellis. The abdomen was considerably distended by flatus and serum. Some of the intercostal spaces on the left side appeared decidedly prominent after the removal of the skin and muscles from the ribs. The diaphragm projected three or four inches, by estimate, below the edge of the left ribs, and was quite irregular, as if stretched over a firm lobulated body.

The heart lay entirely within the right side of the chest, upon the sloping surface of the mass to be described.

The left pleural cavity was entirely filled by a tumor which extended downward, as previously mentioned, and to the right as far as the line of junction of the ribs with the cartilages, the most prominent part being in contact with the heart. It adhered firmly to the walls of the chest. Over the upper part, where it lay against the spine, was the lung, entirely deprived of air, very much reduced in size, spread over some portions in a very thin layer, or here and there imprisoned in the deep fissures between the lobes.

The mass, with the lung attached, weighed nine pounds. It was 13½ inches long, 7½ wide and 4½ thick. Externally it resembled a large fatty tumor, being of a yellowish color, and divided into lobes of various sizes, some of them separated by deep fissures.

Projecting somewhat from the surface, but mostly contained within the substance of the mass, were cysts, these being most numerous and largest in the upper part. Some of them were, by estimate, two or three inches in diameter. Externally, they appeared reddish, the contents being seen through the thin walls. They contained a bloody fluid, and in the largest was a quantity of grumous matter. Some of those in the upper part communicated freely with each other, and from portions of the walls there projected thin partitions. The lining membranes were smooth, and of a bluish or reddish color.

In all parts of the growth were smaller cysts, varying from a quarter of an inch to an inch in diameter. Some of these were considera-
ated, and could be traced with the finger until they terminat-

ed in rounded extremities. They, like the others, contained a bloody fluid, and had quite smooth walls.

The cut surface of the tumor was of a dull-white color, and moist, but yielded no milky fluid. The walls of the cysts alone appeared vascular. It had in many parts a decidedly fibrous structure, like that of some fibrous tumors of the uterus, the fibres diverging or running through the mass in various directions. Other portions had a smooth, uniform appearance. In the upper part of this lung were two similar masses as large as peas, and in the lower lobe of the right, a third, of the same size.

On microscopic examination, the external portions of the large mass were found to be composed of elongated corpuscles, quite granular, but without distinct nucleoli, free, or so closely packed together as to give an almost fibrous appearance to the part. They resembled those represented in *Paget's Surgical Pathology*, Fig. 61 (Am. Edition). In the deeper seated and more fibrous portions the tissue had a decidedly fibrous appearance, but, on the addition of acetic acid, numerous elongated nuclei became visible. The microscopic characters of the small masses in the lungs were similar to those last described.

Specimens from the growth were also examined by Drs. Shaw and White, who arrived at the same conclusion.

The right pleural cavity contained a pint of serum. The lung was considerably smaller than usual.

The pericardium contained about four ounces of serum. The heart was very flaccid, but not, in other respects, remarkable.

In the peritoneal cavity were from two to three pints of serum.

In the anterior wall of the body of the uterus was a fibrous tumor as large as a pea. Nothing peculiar was noticed upon the inner surface.

The left ovary was converted into a single cyst, about six inches in diameter, with thin, bluish, vascular walls, and filled with a brownish liquid. In the right ovary were quite a number of cysts from three to four lines in diameter. The other organs were healthy.

The microscopic examination proved that the growth in the left pleural cavity was one to which Bennett has given the name fibro-nucleated. Paget adopts the term, and speaks of the disease as being "of so rare occurrence that we cannot as yet be sure of many things concerning it." Rokitansky describes and figures the same in his last German edition, under the head of "*Carcinoma fasciculatum.*" He pronounces it a rare disease, usually affecting the female breast, but he has also met with it in the ovary, rectum, subcutaneous cellular tissue, and once in most of the organs, after the extirpation of a similar growth from the thigh.

Dr. Bowditch remarked that the case was one of the most interesting he had ever seen. The rational and physical signs were entirely those of chronic effusion into the chest. The whole of the left side of the thorax was uniformly and evenly distended from the summit to the base, and perfectly flat and inelastic on percussion. The respiratory murmur was absent everywhere, and the heart dislocated to the right of the sternum. There was nowhere on the surface of the body any malignant tumor perceptible. Dr. B. had not the least doubt that there was an immense amount of effusion, which caused the great, as usual, dyspnœa, lividity of countenance, &c. He made three punc-

tures with the *exploratory trocar*, viz., behind, at the side, and in front. A drop of serum came from the last, but only a few drops of blood from the others. The patient suffered no pain, and, in fact, seemed brighter after the operation than before, but sunk within twenty-four hours. The interesting points in the case were the entire impossibility of deciding, from the physical signs, that the tumor, found after death, really existed; 2d, the evident ease with which three punctures were borne by the patient. Dr. B. had observed this result on previous occasions in other patients when no fluid was obtained. The patients never felt worse, but were *rather brighter* after than before the operation.

Feb. 8th.—*Glucosuria.* Dr. Minot reported the following case.

The patient was a widow, aged 55, of dark complexion, hair and eyes. In common with all her family, she was of a strongly-marked nervous temperament. She was quite stout, and had usually enjoyed good health until about two years ago, when she met with a severe bereavement, and soon after became insane. In the course of a few months she recovered her usual health. As early as May last, it was noticed that she made water very frequently, but she did not apply for medical advice until early in December, though she had lost much strength some time before that period. The symptoms of which she complained were great thirst, a dry or clammy state of the mouth, dryness of the skin, severe pain in the back, great debility, frequent palpitation, and a constant desire to pass water, which she did in large quantities. The appetite was keen. The skin was dry; the pulse very moderate; the tongue clean. There was no cough. The bowels were in pretty good order. She thought she had lost flesh.

On inquiry, it was ascertained that she passed about seven pints of urine daily. It was of a pale straw color, frothed easily, was of the specific gravity of 1.034, and contained a large amount of sugar.

The following plan of treatment, being that proposed by Mialhe, was recommended to the patient, who steadily adhered to it, to the time of her death:—A drachm of bicarbonate of soda, dissolved in water, three times daily; a pint and a half of lime water daily; a tablespoonful of a mixture consisting chiefly of calcined magnesia, daily, to regulate the bowels; a vapor bath every other night; diet consisting exclusively of animal food, with the exception of a small amount of bread; port or Bordeaux wine; as little water as possible; a cold hip bath, followed by friction, daily; carriage exercise in fine weather, and occasionally a short walk.

Under this treatment an improvement in the condition of the patient was soon manifest, and continued, with few interruptions, until within a few days of her death. The most striking change was in the amount of thirst, the pain in the back and the palpitation, which symptoms were those that distressed her the most. The thirst soon became quite bearable, and indeed eventually ceased to cause any annoyance. The pain in the back and the palpitations ceased after a few weeks. The strength increased, and the spirits became more cheerful, though she was liable to fits of despondency, and once had a violent paroxysm of hysteria, in which she screamed violently for more than an hour. This attack seemed to be caused by the agitation following the injudicious expression of an unfavorable opinion concerning her

case, by a friend. There was never much emaciation. The appetite was always voracious. The skin lost its dryness, and at times there was considerable perspiration.

In respect to the physical signs, if the expression may be allowed, the improvement was not less decided, though less striking. The quantity of urine soon began to diminish. She was passing about seven pints daily, when she first came under treatment; the amount fell to six, five, and four pints, which was the average quantity during the last few weeks of her life. Sometimes it fell to three pints, and occasionally rose to five. Once or twice she was not obliged to rise at all during the night, to void it. The urine was of a pale straw color, of a faint sweetish odor, and deposited occasionally a light cloudy mucus. It was uniformly acid, and its density was at first 1.039; afterward it fell to 1.032. It always contained sugar. It was analyzed three times by Dr. Shaw, with the following results: Dec. 15th, sp. grav. 1.039, containing 9·20 per cent. of sugar; Dec. 25th, sp. grav. 1.039, 7·30 per cent. sugar; Feb. 2d, sp. grav. 1.032, 5·76 per cent. sugar. The last specimen showed a heavy precipitate of large crystals of uric acid, and some torulæ, and had more color than any of those previously examined.

On the morning of Saturday, January 30th, the patient was as well as she had been at any previous time. In the course of the day she had some diarrhœa, which she attributed to taking cold while shopping, on the 28th. At night she had some palpitation. The diarrhœa continued on the 31st, with the palpitation and much pain in the back. Very little urine was passed on this day. She had a very poor night, and vomited a large quantity of nearly black, and very sour fluid. The vomiting continued, with nausea, and some diarrhœa, through the day of Feb. 1st. There was also much palpitation, pain in the back, and despondency. She passed urine twice during the day. Toward evening she grew lethargic, and in the course of the night she became insensible, and remained in a state of coma, from which it was impossible to rouse her, and died twenty-four hours afterward. About a pint of urine was drawn off by catheter fifteen hours before death. It contained sugar.

At the *autopsy*, the chief points of interest were the large amount of fat in the abdominal walls, and about the viscera. The organs were all apparently healthy. There was no congestion of the brain. The bladder was empty.

Dr. Minot remarked, that among the remedies employed in the case, the vapor bath gave the greatest relief, the patient always passing a comfortable night after its employment.

Dr. Bigelow expressed himself as having but little hope for a favorable result in this disease. In his own practice, he could not recall a single case of recovery, although every mode of treatment had been tried. He remembered but one case in which the alkaline treatment had been the means of prolonging life. In this case, the patient had unequivocal symptoms of the disease, and two years ago was confined to the house. He now walks out, and is certainly much better than at that time. He took, among other remedies, carbonate of potash for a considerable time, and to this his physician attributes the marked improvement in his condition.

With regard to the case reported by Dr. Minot, Dr. B. further re-

marked, that although the symptoms abated, the disease nevertheless was steadily progressing, and undoubtedly was the cause of death.

Dr. Minot alluded to several cases mentioned by Prout, in which life had been prolonged, although sugar still existed.

Dr. Hooker mentioned a case of diabetes in which the patient, a laboring man, passed two gallons of water a day, containing a large amount of sugar. The treatment consisted of cod-liver oil, with small doses of nitrate of silver, together with an exclusively meat diet, his drink consisting of water and milk. For the first fortnight no change was perceptible; but soon after, the quantity of urine diminished, the thirst became less, the appetite better; and in two months the amount of urine passed had reached its normal standard. The treatment was continued, and the patient entirely recovered and lived three years, having had no return of the disease. He died of gangrene of the lungs.

Dr. Parks alluded to two cases of diabetes reported by Dr. John Ware, in which the disease had disappeared under the use of nitrate of silver.

Dr. Bigelow said that this remedy was given in large doses in a case which occurred at Lawrence, but without any perceptible benefit. The dose was from one half a grain to one grain in amount.

Dr. Hooker said that, in the case mentioned by him, the nitrate of silver was not given in any large quantity, nor did he consider the successful termination of the case to have been in any great degree attributable to the remedy.

Dr. Gould thought, that although the dryness of the skin in this affection would naturally suggest the use of the warm bath, it had been said to be injurious, and this remark was in accordance with his own experience.

Dr. C. E. Ware mentioned two cases of this disease in which the alkaline treatment had proved of great benefit. In one, there had been one or two relapses within three years. In another case, the patient, who is still about town, is supposed to have been cured by the nitrate of silver, it now being six or seven years since the attack.

Dr. Putnam had seen a case in which the vapor bath had proved very beneficial.

Dr. Gould also mentioned a case in which the patient, a waterman, was much improved by a removal to the country, using out-of-door exercise, working in the garden, &c., no medicine being taken.

Dr. Minot alluded to the opinion of Prout and others as to the importance of attacking this disease in its early stage.

Dr. Ellis remarked that the microscopic examination of one of the kidneys of Dr. Minot's patient, who died of diabetes, showed most important changes. The tubuli of the cones and cortical substance were darker colored than usual, and crowded with minute fat globules, granular matter, and probably diseased cells or nuclei. Many free fat globules were also seen, together with irregular cells somewhat resembling epithelium, but so crowded with brownish granular matter, that their character could not be clearly determined. Not a healthy tube or cell was anywhere seen. The results were essentially the same as those noticed in a similar case in 1853. In this, the tubuli of different parts were in like manner filled with fat globules.

In another case although the cortical substance presented nothing

remarkable to the naked eye, the tubuli had lost the greater part of their epithelium. The same appearances were noticed by Dr. Shaw, who also found the tubes crowded with granular matter.

Wedl, in his *Pathological Histology* (p. 308, Vienna, 1854; p. 263, Sydenham Soc. Transl.), mentions a single case in which many of the tubuli were filled with fat globules, as were also the free epithelium cells.

These cases are interesting, inasmuch as they show the incorrectness of the common statement, that the kidneys are not diseased in diabetes. Though the number of observations is small, the correspondence between the results is such as to lead us to infer that a more extended examination of the subject would prove that the apparently healthy kidneys participate in the disorder in a most striking manner. By this it is not intended to assume that the difficulty may be traced to the lesion of these organs. The evidence to the contrary is abundant and conclusive. The facts are, however, very important, and will become more so if corroborated by others.

Feb. 8th.—*Ascaris Lumbricoïdes of unusual size.*—Dr. Morland, referring to the lumbricus which he had shown to the Society, December 14th, 1857, said that it was a little over *seventeen inches* long and proportionably large. It was a female, and, when first seen, the intestinal and genital apparatus were distinctly visible through the integument; after a few days' immersion in diluted alcohol, the skin became opaque. The parasite was brought to Dr. M. whilst attending outpatients at the Central Office of the Boston Dispensary, by the mother of a little girl nine years of age, and who had passed it spontaneously. Anthelmintic medicine was ordered, and the patient desired to report the fact, should more worms be discharged. Not hearing from her for several weeks, it is believed that this may have been the sole specimen, although the lumbricus is seldom solitary.

It has been remarked by observers, and previously so stated to the Society, that *female* children are more obnoxious to lumbrici than males. Also, that those who are poorly lodged and fed, as was true in the instance above given, are far more prone to verminous affections.

Another point worthy of notice is, that when an inordinately large lumbricus is voided, the chances are that no more, or very few, will appear. This is referred to by Cloquet, who says (*Anatomie des Vers Intestinaux Ascaride Lombricoïde et Echinorhynque Géant*, &c., Paris, 1824), "generally their size is in an inverse proportion to their number; they are always free in the intestinal canal, and never adhere to its walls." In a note, he excepts cases where accidental perforations, or those resulting from disease, have occurred. Cloquet alludes to the different causes of the variation in the size of these parasites, as follows:—"The ascaris lumbricoïdes is the species of ascaris the most voluminous. There is great variety in its dimensions, according to the age of the worm, its sex, the sort of animal in which it lives, and probably, also, to the quantity of nutritive matter which it finds in the intestines." On consulting the chief authorities, Dr. M. had found only one who mentions a greater length than that of the individual he had shown, as ever having been witnessed for the lumbricus. Dujardin, quoted by Küchenmeister in his late work (*Manual of Animal and Vegetable Parasites*), states that the male worm averages from four to six inches in length; the female, seven to eleven; and as the extrem-

est length, mentions *eighteen* inches. The specimen, therefore, which has, since its exhibition, been distinguished by Dr. JACKSON with an appropriate mounting and a place in the Society's Cabinet, may be considered worthy of that attention, from its very near approach to the greatest recorded length.

Küchenmeister, himself, does not speak of the average length attained by the lumbricus. He remarks, however, that the smallest he has ever seen, and which he still preserves as a microscopic specimen, is a "sexually immature worm, of about one and a half inches long;" this he expelled from himself.

All the other writers who state the length of this parasite, give much smaller figures. Thus Cloquet says, the lumbricus is "from two to fifteen inches in length; it is rare that any exceed twelve inches in the human subject. Their size is ordinarily proportioned to their length. Their diameter, around the middle of their bodies, varies from a line to two lines and a half." Griffith and Henfrey (*Micrographic Dictionary*) state the average length as from *three to fifteen* inches; Jones and Sieveking, *six to fifteen*; Vogel (*Pathological Anatomy*), *six to ten*, "and even fifteen;" Rokitansky, *six to ten*, and even fifteen;—both the latter observers evidently considering fifteen inches as quite unusual;—Bock, *one to fifteen*; Guersant (*Dict. de Médecine*), *three to eleven or twelve* inches.

Dr. HOMANS has in his possession a lumbricus *fifteen and one-half inches* long, which is the next in length to the Cabinet specimen. Since securing the latter, one was brought to Dr. Morland at the Dispensary Office, measuring ten and three-quarters inches. Those residents of the city who receive Dispensary care appear to be extremely fertile in these parasites, as might, indeed, be expected. It is of course necessary to take the statements of parents *cum grano salis*, when they assert that lumbrici *two feet* in length, and frequently over one foot long, are passed by their children; but ocular demonstration allows the inference that both as to size and frequency of occurrence, the population before referred to is likely to afford material for *statistics* upon the subject, if desirable.

FEB. 8th.—*Tumors of the upper Lid.* (*Malignant?*)—Dr. BETHUNE reported the case.

The patient, Mrs. R., a widow aged 85 years, entered the Infirmary Jan. 26, 1858. Her health was not strong, and she was subject to asthma. About one year ago she had a fistula at the edge of the upper left orbit, which was supposed by the physician in attendance to be connected with disease of the lachrymal gland. This was followed by a cicatrix and induration with small tumors.

For the last six months the tumors have increased, and, at the time of the examination, a firm, irregularly lobulated tumor, of the size of two half peas, joined by the neck, was felt at the upper edge of the left upper lid, which is somewhat drawn down over the eye by adhesions between the globe and lid.

The upper portion of the tumor seemed to extend up under the orbit. On the 28th, these indurated masses were entirely removed. The upper was found *not* to extend into the orbit. The wound had nearly healed.

The following is the result of the microscopical examination by

"The specimen left with me for microscopic examination, was a cellular growth. The cells were large, of irregular form, quite pale and studded with fine granulations; many of them were elongated and somewhat fusiform. The nuclei, both those contained within the cells and those which were found free, were very large, being about two thirds the diameter of the spherical cells, more or less oval, quite pale and granulated. Very few of these nuclei exhibited nucleoli until after treatment with dilute acetic acid, when nucleoli of considerable size appeared, probably having been previously obscured by the granulations. The disease had the appearance of cancer to the naked eye, and, upon breaking it into fragments, a milky juice was formed, precisely as in cancer. The cells contained in this fluid were not fully typical of cancer with respect to nucleoli, but certainly they approached nearer this disease than any other."

Feb. 8th.—*Malignant Disease of the Uterus; Cystic Disease of the Iliac Muscle.* Dr. Charles E. Ware exhibited the specimen.

It was from a woman 52 years of age. Her catamenia ceased at 48. About two years after, she began to have attacks of flowing, with lancinating pains about the region of the uterus. She was seen by Dr. Ware, and examined early in the spring. She had then a ragged ulcer of the os, with enlargement, and hardness of the cervix, frequent attacks of hæmorrhage, some pain, and her general health was beginning to fail. It continued to fail through the summer, and in September she was first attacked with severe pain in the left hip, extending down the leg, accompanied by some numbness, and inability, on account of the pain, to extend the leg. For a week or two this entirely crippled her. She was then able again to walk about, but never got a free use of the leg afterwards. No tumor could be discovered at any time in the pelvis. The function of digestion remained unimpaired until November. At this time, there began to be embarrassment of defecation, and early in December little came away, even with the aid of injections. For six weeks before death, nothing whatever passed the bowels. The vagina was also closed. Nausea, vomiting and dyspnœa came on, and she died one week after.

On examination, *post mortem*, the uterus was found extensively diseased, a small portion of the fundus alone being healthy. The rectum was closed, and the disease was just beginning to appear through the walls of the bladder.

There was also cystic disease within the pelvis similar to that reported some time since, involving the psoas muscle.—(*Society's Records*, Vol. III, p. 152). It appeared to occupy the iliac muscle, was of the size of the two hands, tense and firm, with the crural nerve running over it. The cyst was within the muscle or under it; and very firmly adherent to the bone. It contained a reddish fluid, and was intersected by bands. There was no destruction of the periosteum.

Feb. 8th.—*Circumscribed Cancer of the Stomach.* Dr. Ellis showed the specimen, which was from a patient of Dr. Bigelow, who gave the following brief history of the case.

The patient was a farmer, aged 70 years, who had had nausea in the morning for three years past. He had suffered, more or less, from pain in the region of the epigastrium for three months, and for the last

six weeks, until within one week of his death, he had had nausea and vomiting. The matter vomited was watery, and had an offensive smell. There never had been vomiting of grumous or other matters which would throw any light on the nature of the disease. He became, at last, wandering, somnolent, and comatose, and died a day or two since. He had had difficulty of urinating, which required the use of the catheter.

*Sectio Cadaveris*, by Dr. Ellis. With the exception of some changes in the brain incident to old age, nothing remarkable was noticed in the head. In the smaller curvature and posterior wall of the stomach was a morbid growth about three inches in diameter, and rising, perhaps, an inch above the surrounding surface. Its upper surface was irregular and of a dark-red color. Portions like coagula separated with ease. On incision, the growth was found to be of a whitish color and moderate consistence. It had evidently originated in the submucous cellular tissue, but in its advanced stage involved all of the coats. Some slight irregularity of the surface was noticed in the neighborhood, but the disease was remarkably circumscribed. A detached nodule, about four lines in diameter, occupied the submucous cellular tissue just within the pylorus. Though the orifice itself was free, the position of the diseased mass was such as appeared to interfere with the escape of the contents of the stomach into the intestine. The muscular coat did not appear to be thickened.

On microscopic examination, the growth proved to be of a malignant character.

The prostate was twice as large as usual, and contained quite a number of minute calculi.

Feb. 22d.—*Leucocythæmia.* Dr. C. E. Ware reported a case of leucocythæmia, with enlarged spleen and liver.

The patient was a woman 39 years of age, whose health had never been good since her first confinement, fifteen years previous. Her complexion always wanting in color. Five years since, she first noticed some fulness in the left side of the abdomen. For three years a tumor had been obvious; and for the last two years her health had been constantly failing. There was at times urgent cough, and once or twice slight hæmoptysis. She had also dyspepsia, all her food disagreeing with her. The catamenia was regular until the last three months; since then absent. She had never had jaundice.

Dr. Ware saw her first, three days before her death. She was then extremely emaciated, but up and dressed. Her complexion was perfectly blanched; pulse 130, very feeble; tongue thinly furred, smooth and pale; skin dry; no night sweats; bowels regular; dejections normal in color and character; urine normal in quantity, rather high colored, but not tinged with bile. There was slight œdema of feet, but no other signs of dropsy existed.

The chest presented no marked physical signs of disease. There was not, nor had there been, any enlargement of the lymphatic glands. The abdomen was moderately full, but not tense nor tender. The liver could be made out by touch and percussion, extending about an inch and a half below the ribs, across the epigastrium, and down the left hypochondrium as far as the crest of the ilium; the edge of the tumor, and th[illegible] between the right and the left lobe, being appa-

rently perfectly well made out. A drop of blood from the arm presented a very great preponderance of white corpuscles.

The patient continued to sink, and died two days afterward, her mind being perfectly clear to the last.

At the autopsy, there were found firm adhesions of both lungs, with cicatrizations, cretaceous matter, and all the appearances of old tubercular disease about the apices of both lungs. Both lungs were quite œdematous.

Into the pericardium there was moderate effusion. The heart was normal; containing a large amount of soft clots and liquid blood. On opening the abdomen, the tumor was found to be composed of the liver and spleen, both enormously enlarged, the spleen weighing 3½ pounds. The liver extended far over to the left side, overlying with its left lobe a considerable portion of the spleen, so as to give to the touch a perfectly uniform surface quite down into the iliac region. It was apparently not altered at all in its texture, being merely hypertrophied—not fatty. The spleen was natural in color, and firm in texture.

Dr. Ware also alluded to another case of leucocythæmia, not apparently splenic, which he reported to the Society at the meeting previous. This occurred in a girl 16 years of age, who had always been in feeble health, and in whom the catamenia had never appeared. When seen, a few weeks before her death, she was perfectly anæmic. She had been failing in health for more than a year, without other evidences of organic disease. The lymphatic glands of the neck were considerably enlarged, but there was no sign of tumor, or of enlargement of any of the organs of the abdomen. There were no signs of thoracic disease. There was moderate œdema of the feet, and a few purple blotches upon the legs. There were no indications of renal disease. About a fortnight before her death she was attacked by diarrhœa, in the course of which there was quite a copious hæmorrhage from the bowels. She died, very suddenly, of hæmorrhage from the stomach, having been much excited and fatigued by moving from one house to another. No autopsy was allowed. But in her case, before her death, the same disproportion was found between the white and red globules, in blood taken from her arm, as in the first case.

Feb. 22d.—*Primary Cancer of the Bladder.* Dr. Hodges showed the specimen and reported the case.

W. S., 49 years old, had had pain in his loins and painful and difficult micturition for about 4 years. At times his urine had been tinged with blood. Gave up work ten months before his death, though for some time previous he had been unfit for it. At this time he complained of intense pain in his fundament and in the end of his penis; the corpora cavernosa were indurated. His urine was passed, with much scalding, every half hour. The stream was occasionally interrupted, was always bloody, and deposited much mucus and glairy matter. Dr. H. sounded him, but found no stone or evidence of fungus. The bladder held about an ounce of water. His condition remained about the same during the succeeding months. His appetite continued, and he rode out within a fortnight of his death. During the last fortnight, however, his urine gradually assumed a chocolate color, became very offensive, and had a grayish purulent deposit mixed with clots of blood. It *occasionally* passed involuntarily. He had a ten-

der globular tumor in the left hypogastrium; also a tumor bulging into the rectum, almost precluding examination or the introduction of suppositories of morphia, which were his chief source of relief. He began to vomit and hiccough about a week before he died, and nothing had any alleviating effect. For the last four or five days he had a diarrhœa, the passages being involuntary, and occurring whenever he passed his water. An instrument always entered his bladder without encountering any obstacle.

At the autopsy the bladder was found filled with a soft encephaloid mass, which was broken down during removal. The mucous membrane of the bladder was destroyed, except at one point where a surface as large as a silver dollar remained intact. It also existed in its natural state for a distance of three or four lines around the orifice of the urethra. The ureters were dilated, and the fundus of the bladder had formed an adhesion with the rectum that would soon have led to a perforation. The pelves of the kidneys were dilated, and the substance of these viscera was in a state of inflammation. The lumbar glands were enlarged. The other viscera were not remarkable.

Feb. 22d.—*Fatty Degeneration of the Muscles of the Leg.* Dr. H. J. Bigelow showed the specimen.

The patient, a woman 56 years old, had had ulcers on the left leg for ten years, one situated over the external malleolus, measuring about one by two inches; the other commencing two inches above, and running spirally upward two thirds around the leg. She fell from a ladder ten years ago, the bruises then received resulting in the ulcers alluded to. A year ago in July, she was run over by a carriage, the wheel passing over the ulcers. Considerable inflammation followed, since which their progress had been more rapid. The leg was amputated by Dr. Bigelow, Feb. 20th, and the muscles of the leg were found to have undergone extensive fatty degeneration, the result, obviously, of protracted rest, co-existent with a low degree of inflammation; an appearance not unusual, but rarely so well marked as in this case.

Feb. 22d.—*Compound Fracture of the Ankle-joint; Amputation.* Dr. Bigelow also exhibited this specimen.

The patient was an Irishman, aged 60, who entered the Hospital, Dec. 22d, with compound fracture of the bones of the leg, just above the ankle. There was a ragged opening just above the internal malleolus, of the size of a quarter of a dollar, through which the bone could be felt. The foot and ankle were much swollen, and there was great displacement outward. The leg was amputated by Dr. B., February 20th.

Dr. B. remarked that formerly it was customary to amputate in injuries of this nature; but subsequently, and of late, much had been said, and, indeed effected, as to saving the leg in cases of bad compound fracture. He would not here allude to the common indication to be derived from the condition of the vessels, nerves, &c.; but after the experience of a considerable number of these cases, he felt justified in saying, that great uncertainty attends the result of an attempt to preserve the limb; that while the worst cases sometimes recover, the most promising cases do badly. Where amputation is not performed, the patient may soon commence a downward course, and the

operation is postponed from day to day in the hope of some improvement, until the patient's chances are greatly diminished. On the other hand, in cases of recovery after bad compound fracture at the lower part of the leg, the patient is generally bed-ridden for many months, and dependent upon crutches for one or two years; circumstances to be considered in the case of a laboring man.

Feb. 22d.—*Adipocere.* Dr. Ellis showed the specimen, which was received from Dr. H. W. Thayer, of Keene, N. H. It was taken from a body that had been buried for eight years, and its thickness comprised all the tissues of the part, from the skin to the bone. All the soft parts of the body were converted into this substance.

Feb. 22d.—*The advantages of Ether over Chloroform as an Anæsthetic Agent.* Dr. Hodges read a passage from the last edition of Erichsen's work on Surgery, in which the author expresses a decided opinion in favor of the safety of ether over chloroform as an anæsthetic.

Dr. H. thought the remark important, as evincing a commencing change in the minds of British surgeons with regard to the two agents; chloroform having been hitherto generally employed in England, while in this country it has to a great extent been superseded by ether.

The Secretary remarked that Mr. Erichsen was first called upon to express his views on this subject, in a letter in reply to the inquiry of Dr. S. D. Townsend, why chloroform was still employed in England in preference to ether; these views being the same as those published, to which Dr. Hodges had referred, and expressed in language almost identical.

This letter was read before the Society in September, 1856. (See *Society's Records*, Vol. III., p. 34.)

March 8th.—*Scarlet Fever followed by Chicken Pox; Fatty Tumor upon the Head.* Dr. Cabot reported the case.

The patient, a child, entered the Hospital three weeks ago, with a tumor upon the back of the head, which came on three months after birth, and proved to be of a fatty nature.

Previous to coming to the Hospital, the child had lived in a house where there was scarlet fever and chicken pox. On the day after the operation for the removal of the tumor, the patient was taken with vomiting, and on the following day, a rash appeared upon the skin, and the case proved to be a mild attack of scarlet fever, being followed by an enlargement of the glands, and pain in the joints. As the disease subsided, chicken pox made its appearance over the whole surface of the body.

The tumor, Dr. Cabot further stated, was of about the size of a hen's egg, and flattened, situated on the median line, just beneath the occipital protuberance; it had a fluctuating feel and was translucent in appearance, resembling a cyst filled with fluid. The only question as to its diagnosis, was between encephalocele and an oil cyst. Dr. Gay alone suggested the possibility of a fatty tumor. On pushing the tumor to one side, a bony rim was felt which proved to be the occipital ridge, there being no depression.

With regard to the fluctuation of fatty tumors, Dr. Jackson said that it had not been noticed by surgical writers, and he was inclined to question whether the difference in such tumors in this respect, does

not depend upon the greater or less proportion in the tumor of fat to the fibro-cellular tissue.

Dr. J. alluded, in this connection, to a case of fatty tumor upon one of the fingers, reported by Dr. H. J. Bigelow, some years since. This tumor so closely simulated a bursa mucosa that it was punctured.

Dr. J. instanced the fatty deposit beneath the *ligamentum patellæ* as liable to mislead a surgeon, who might infer the presence of fluid in the joint.

Dr. Gay alluded to a case of fatty tumor upon the back of the head of an adult, for which he operated. The patient said that it was not congenital. It had the same fluctuating feel as did that in Dr. Cabot's case, and all who saw it were in doubt as to the presence of fluid. No allusion was made to the possibility of its being of a fatty nature. The rim of bone was quite marked.

With regard to the diagnosis between encephalocele and cysts, Dr. Warren thought it embarrassing. A child was brought to him some time since, with a large congenital tumor on the back of the head; it was firmly fixed to the skull, and its base surrounded with a bony ring, and it appeared to protrude from the cranium at that point. A cautious dissection was made, and the adherence between the cyst and the bone found to be very intimate. The tumor had made for itself a bed in the bone, from which the above appearances arose. Shortly after, another case presented, apparently similar, being also congenital. There was, however, no appearance of bony ring, or projection from the skull. With the advice of other surgeons, Dr. W. operated. In pursuing the dissection under the tumor, it was found that it communicated with the cavity of the cranium by a small aperture scarcely large enough to admit the finger, and directly under the centre of the supposed cyst. There was no elevation of the bone, and no symptoms which could have led to a diagnosis of the case. The shape of the tumor was perhaps not so globular as the cyst of the head, but still not elongated, as depicted in some of the books which treat of this malformation.

March 8th.—*Fragment of Bone in the Urethra. Vesical Calculus.* Dr. J. Mason Warren reported the case.

Dr. W. said that a few weeks since, a young man, 28 years of age, applied to him with an obstruction in the urethra, and a pain at the end of the penis. He had suffered more or less with urinary troubles for some years, but had not been obliged to give much attention to them until within the last two weeks. Some difficulty was encountered in passing a catheter, from a twist in the urethra, caused by the position of the pelvis—the patient having, in childhood, suffered from a severe hip disease, in the course of which the right femur had become anchylosed with the acetabulum, and now lay diagonally across the perinæum, so as to interfere much with the manipulations of the instrument. Near the neck of the bladder a foreign substance was detected, which appeared to be a bit of bone; and on the patient being interrogated, he said that three years since he had consulted Dr. W. for a fistula in the perinæum, caused, apparently, by the escape of a bit of osseous matter at that point. On inspection, the hip and thigh were studded in every direction with cicatrices, made by the openings for the escape of bone.

After two or three days' treatment the obstruction in the urethra was removed, and the patient relieved. Before returning home, Dr. W. thought it best to explore the bladder with a sound, which at once encountered a very large stone, lying quiet in a sac, in the lower part of the bladder. As the operation was likely to prove a critical one, not only from the size of the stone, but also from the diseased urethra, and the manner in which the femur was fixed across the perinæum, Dr. W. advised the patient to enter the Hospital.

The bladder not being very sensitive, the operation was done, without ether, in the following manner. The pelvis of the patient was elevated by means of the anchylosed femur, which was supported on the shoulder of an assistant. Water being injected, the instrument was passed under the femur into the bladder, some manipulation being necessary to obviate the lateral turn in the urethra. The stone, before being caught, required to be fished up out of the hole in which it was stowed away. It measured about two inches in diameter.

Six operations were required, and the man has just left the Hospital well. The only trouble experienced in the course of the operations was from large bits of stone being twice lodged near the end of the urethra, from which place they were dislodged by breaking them down with the forceps, and removing them piecemeal.

March 8th.—*Tumor of the Larynx.* The specimen was received from Dr. Adams, of Waltham, and was shown by Dr. Bowditch, who also read the following account of the case.

Dr. A. saw Mrs. N. for the first time in 1849. She was then suffering from a severe bilious difficulty, attended with great yellowness of the skin. She stated that she had had several such attacks, which had always been attended by this same yellowness of surface, indeed the skin had never been free from this yellow tint for six years (since 1843), during which time she had been an invalid. The severity of the sickness for which Dr. A. was consulted yielded very soon, and under a careful course of diet and regimen, which had not been before much attended to, she soon rallied, and the yellowness of the surface disappeared.

During the winter of 1849 and 1850 she experienced great pain in the throat, which often kept her awake, and was attended at times with a spasmodic difficulty of swallowing. This spasm about the throat had occasionally occurred for two or three years, so that the act of swallowing was always performed very slowly and with great care. Dr. A. was not consulted in relation to it at this time, and learned the fact when she came under his care during the last winter. From this time (1850) to February, 1857, her health was much improved, and she rarely sought advice during this interval.

In February, 1857, she consulted Dr. A. for a hoarseness and a sense of tickling in the throat, and an increased difficulty of swallowing, it seeming, at times, as if the food were spasmodically thrown from the mouth during the act of swallowing it. There was a slight hacking cough; her general health was as good as usual. The uvula was, on examination, found to be very much elongated, and was removed, in the expectation that relief of the hoarseness, at least, would follow. The operation did not, however, give the least relief. The pomum *Adami*, in April, seemed to be somewhat more prominent than usual,

and a little larger than natural, but not altered in its form. The general emaciation was at this time sufficient to have accounted for it in part. The hoarseness continuing, in May the nitrate of silver was applied to the throat for several weeks, without much relief. In July, Dr. Bowditch saw her and confirmed Dr. A.'s diagnosis. For several weeks after, the application of nitrate of silver was alternated with the tincture of iodine, and the latter was also applied externally. In August, no relief following these applications, they were suspended. The voice still remained hoarse; there was also a good deal of mucous rattle in the trachea, the breathing being sometimes rather laborious, but not uniformly so. After this, various other means were used, but without any decided relief.

Early in September the breathing became more difficult, and a small blister was applied to the throat, which appeared to produce a little mitigation of the distress. These were occasionally repeated, as circumstances required, till the middle of October, when the breathing became less embarrassed, but not entirely easy. At this time, also, the swallowing improved, but was always done with great care and caution; her appetite was much better and she took food freely, and always digested it well to within two days before death; the emaciation, however, increased, as did also the hoarseness, and she could not utter a loud word. There was no cough, and had been but little during the whole sickness, and very little pain during the last four months. She died January 19th, 1858.

The *post-mortem* examination revealed a tumor, of about the size of a walnut, in the larynx, occupying one ventricle. It was rather hard, rounded, and evidently non-malignant. All the other organs were healthy.

The existence of the tumor would certainly explain many of the symptoms, but did not in the least confirm the diagnosis.

March 8th.—*Croup; Tracheotomy; Death.* Dr. Ellis reported the case.

On the morning of February 20th, an Irish child, fifteen months old, showed some symptoms of laryngeal trouble, but these were so slight that they hardly attracted attention until the following morning. The patient was first seen by Dr. Ellis at 2, P.M., Feb. 21st. The breathing was then stridulous, the respiration 40, the pulse 136, the face pale or sublivid, the eyes closed, and the head thrown back. On examination of the back, mucous râles were heard on both sides. The pharynx, on depressing the tongue, was at once filled with a purulent fluid, which rendered it impossible to determine whether false membrane existed there or not. The child was seen soon after by Dr. Cabot, who performed the operation of tracheotomy in the usual manner, at 3½, P.M., the patient at the time being under the influence of ether.

The difficulty of respiration was at once relieved, and the child slept for some time. The opening of the tube was kept covered with a piece of gauze moistened with water. At 10 o'clock, the face was flushed and there was considerable heat of the skin, but he continued pretty comfortable until 3, A.M. The dyspnœa then returned, and was quite urgent at the time of the visit at 9 o'clock. The face was pale, the respiration 68, and the pulse very rapid, but not counted on

account of the struggles of the child. Judging from the sounds within the trachea that the tube was obstructed, Dr. Cabot introduced a small sponge upon the end of a whalebone, and removed two portions of false membrane from one to two inches in length. One of these was tubular, and indicated by its size that the secondary bronchi were certainly affected. The removal of this afforded some relief, but at noon the dyspnœa was as urgent as before. Considerable thick sanious fluid was from time to time expelled from the tube. Mucous râles were abundant in the back. From this time the dyspnœa increased until the child died, at 7½, P.M.

Dr. Cabot remarked that he supposed the disease in this case to have commenced below the larynx and extended upward; that suppuration probably took place between the membranous lining and the mucous coat, by which the former became detached, and being thrown off and lodged in the larynx, caused the first serious symptoms. No lymph was seen at the opening made in the trachea, pus alone appearing and filling it at once. Dr. C. further said, in reply to Dr. Jackson, that he had seen two other cases, both fatal, in which he was confident the progress of the disease was from below upward. In one, which occurred in the practice of Dr. E. H. Clarke, no lymph was to be seen at any time upon the tonsils, while all the symptoms were unequivocally those of croup.

Dr. W. E. Townsend thought it remarkable that formation of the membrane commencing below, together with suppuration, as suggested by Dr. Cabot, should be accompanied with so little constitutional disturbance, in which opinion Dr. Cabot coincided.

With regard to the rapidity with which this disease sometimes progresses, Dr. Jackson alluded to a case that occurred, some time since, under the care of Dr. Perry, in which the first symptom was not noticed until within nineteen hours of death.

In answer to Dr. Gay, Dr. Ellis said that where the membrane is confined below the larynx, the breathing would not, in his opinion, partake of the croupy character.

At the subsequent meeting (March 22d), Dr. Lyman reported the following fatal case of croup, in which tracheotomy was performed.

At the request of Dr. Gould, who was confined by illness, Dr. L. was called, March 7th, to see A. H., aged 3 years 4 months, suffering with laryngitis. Found the patient moribund, surface livid, extremities cold, dyspnœa excessive, eyes open, fixed and dull. The parents were told at once that the child was dying. To their inquiry if nothing could be done, Dr. L. replied that, as a desperate remedy, the trachea might be opened, but that the chances of any good result were very trifling. Upon signifying a wish that it should be done, however slight the prospect of relief, a messenger was instantly despatched to Dr. Lewis's office, close at hand, to procure a tube, which Dr. Gay was kind enough to bring himself. Dr. Lyman immediately opened the trachea below the cricoid cartilage, and about 2 o'clock the tube was in its place. As an evidence of the desperate condition of the child, it may be observed that it was apparently insensible to the action of the knife. The immediate result was for some minutes doubtful, but stimulants to the nasal membrane and trachea, and clearance of the tube by suction, induced expiratory efforts and expulsion of several large pieces of membrane; the color returned, the eyes re-

sumed their natural expression, the skin became moist, and, with an expressive smile to its father, the child became tranquillized.

During the absence of the messenger, Dr. L. found, by examination, an abundant supply of lymph upon the tonsils, and in the hope of exciting cough, applied a strong solution of nitrate of silver. No irritation of the larynx, however, resulted from it.

This patient had been ill one week—that is, since the previous Sunday. On Wednesday evening, hoarseness was first observed, which, with the cough, increased gradually, until 1 o'clock, half an hour before Dr. L. first saw him, at which time a sudden fit of violent and distressing dyspnœa supervened.

The child was left at 3¼ o'clock, the air penetrating easily and freely to the base of the lungs, with a little mucous crepitus on the left side. It swallowed water easily, and without exciting cough, the respiration being entirely through the canula, the fenestrum upon the convex surface of which was completely closed by the dense plug of lymph above. 6, P.M.—Had been dozing tranquilly, without distress. Had had one copious, dark-colored, offensive dejection; swallows water easily; skin cool and dry; respiration loud and whistling through the tube; pulse 152; respiration 43; both accelerated by Dr. L.'s presence and examination, for before the termination of the visit he fell asleep, and the respiration became perfectly regular at 30, and pulse 132. Ordered Dover's powders, with calomel, and to have chlorate of potash for drink. Later in the evening and early Monday morning condition much the same. Had had two strangling fits, relieved by removing and cleansing inner canula. At 1½, P.M., he was found much oppressed for breath. On removing the inner canula, its calibre was discovered to be diminished one half by a hard glue-like coating of mucus covered with pus. A feather passed through the tube into the trachea, brought away a considerable amount of purulent mucus. A few drops of water poured into the canula brought on violent expulsive efforts, with discharge of shreds of membrane and purulent mucus, followed by great relief, he immediately falling into a tranquil sleep. 6, P.M.—Continued comfortable; had had a well-formed natural dejection; skin more natural; respiration easy, and less moist and gurgling. His father thinks the air passes through the larynx when he coughs, and his whole aspect is more encouraging than at any previous time.

An hour and a half later, Dr. L. was called in haste, and found him in much the same condition as when seen previous to the operation—*i. e.*, dying—heart still beating strongly, both lungs remarkably resonant, but the air evidently penetrating very feebly. Passed a bent probe and feather for an inch beyond the inner extremity of the canula, but the obstruction below resulted fatally, he quietly breathing his last at 8 o'clock, 30 hours after the operation.

*Sectio Cadaveris*, 14 hours after death. Lungs distended with air, no collapse occurring on raising the sternum. Larynx filled with a dense plug, and presenting the exact appearance, at its lower extremity, when divided, of a bit of boiled maccaroni, the central aperture allowing of the passage of a fine silver probe. From the seat of the operation to the bifurcation, the mucous membrane was actively congested, and covered with much purulent mucus and occasional patches of lymph, the larger par[illegible]ing doubtless been expectorated. At the

bifurcation, the bronchi were almost completely closed by adherent lymph, extending into the tubes as far as could be conveniently traced with the scissors. Lungs healthy, excepting active congestion of a small portion of the summit of the left lobe. These appearances of the trachea and bronchi are still well shown in the specimen before us.

In view of this condition of the bronchial tubes, it is very remarkable that the child's respiration should have been so tranquil until one and a half hour before death, unless it be conceded that this exudation occurs with greater rapidity than has heretofore been thought probable. In this case the sudden access of dyspnœa just previous to the operation, and a similar occurrence just before death, in connection with the somewhat similar phenomena in the history of the above case reported by Dr. Ellis, would seem to favor the supposition of a very rapid accumulation of solid lymph in this fatal form of croup.

Dr. Gay alluded to a case that occurred in the practice of Dr. Wyman, of Cambridge, in which, during the intervals between the turns of distressed breathing, no serious symptoms were apparent. One of these paroxysms occurring while Dr. W. was present, he immediately opened the trachea with a penknife, and inserted a quill; immediate relief followed, but the child died 24 hours after, suffocation having been produced by a small bit of membrane that was found closing the *rima glottidis* like a flap.

Dr. Lyman mentioned a case of recovery from this disease that was related to him, in which both tonsils were covered with lymph, and the aspect and prognosis were most unfavorable. A friend, called in consultation, declined to perform tracheotomy, so desperate did the case appear.

Dr. H. J. Bigelow alluded to a similar case. The symptoms were all severe, and had lasted four days, there being, at the time he saw the patient, hard breathing and discoloration of the face. It was decided not to open the trachea. Recovery subsequently took place.

Dr. Cotting questioned whether the essence of the disease does not consist in something beyond the formation of false membrane, and instanced a fatal case in which no membrane was discoverable.

Dr. Lyman had been of this opinion until the occurrence of the above case reported by him.

Dr. Jackson alluded to four cases of croup reported some years since by Dr. James Jackson, in the *New England Medical Journal* (1812), in which no false membrane was found, the appearances being those noticed in acute bronchitis. He mentioned, also, a fifth, which he had no question, from the symptoms, was a case of membranous croup, and yet no trace of a membrane was found.

Dr. Oliver reported two fatal cases of diphtherite following measles, in one of which tracheotomy was performed by Dr. Coale. Although great relief followed the operation, the patient died six hours after. The two patients, each about two years old, were in the same room, this fact being interesting as connected with the contagiousness of the disease. Vapor was also employed.

Dr. Clark mentioned a case following measles, from which the patient recovered in ten days; the treatment consisting of nitrate of silver, vapor, large doses of chlorate of potash, with brandy and water, and animal broths to sustain strength.

Dr. Coale had had, in all, seven cases of membranous croup, in two

of which recovery had taken place: steam, with a liberal support of the strength by diet, being the means employed.

Dr. PUTNAM mentioned two cases, both of which recovered under the use of nitrate of silver.

Dr. LYMAN related a case that he had recently had, in which the tonsils were covered with lymph, and the constitutional symptoms very severe. Cauterization was employed, and the patient kept in an atmosphere of steam day and night: calomel and opium were administered, and the patient recovered. Some doubt was expressed whether the lymph in this case extended into the larynx.

With regard to the treatment of croup, Dr. STORER was inclined to place great reliance upon the use of medicated vapor, its action being twofold, viz., to effect the detachment of the false membrane, and to arrest its farther formation by producing a change in the condition of the mucous membrane.

Dr. B[illegible]ow remarked that it is not always easy to determine as to what exactly constitutes croup. Patients sometimes die without the existence of the membrane, and sometimes recover where it is present. As to the treatment, two modes have now been suggested, one by the application of nitrate of silver, the other by steam. He had seen patients recover under both methods, and had known them to die where both had been tried. Patients also recover where neither has been adopted. He remarked that he did not understand the alleged operation of steam in membranous croup, since the steam inhaled could not reach the diseased surface, being prevented from contact by the interposed [illegible] of lymph. With regard to the nitrate of silver, he considered it impossible that the whole diseased surface, including the br[illegible] could be [illegible] and therefore the benefit, if any be derived fr[illegible] extra-stimulation, causing a diversion [illegible]

At [illegible] May 10th, Dr. CABOT stated that since the [illegible] by Dr. [illegible] he had performed tracheotomy in tw[illegible] the disease terminated fatally. In a[illegible] the patient was aphonic [illegible] four or five days after the at[illegible] several portions of false m[illegible] had not learned.

[illegible] asked what he would consider [illegible] Dr. C. said that he s[illegible] operate. The sur[illegible] and wishes of the [illegible] operation as a formida[illegible] until the case is [illegible] termination. In a [illegible] another.

[illegible] of false membrane [illegible] operation would do m[illegible] the free access of air [illegible] counteract the depression [illegible] of this disease, and thus re[illegible] to the proportion of fa[illegible] cases [illegible] given by Trousseau, this being about *thirty* per cent.

Dr. Lyman thought this operation unlikely to prove successful where the membrane extends below the cricoid cartilage. He was of opinion that the proportion of favorable to unfavorable cases that have been here reported is as large as that given by Trousseau.

Dr. Bigelow made a distinction between cases of croup in adults and in children above 6 years old, in which he would not hesitate to operate, and in children under that age.

Dr. Gay said that the membranous formation may appear primarily in the bronchi and ascend to the trachea, larynx and fauces. In all such cases tracheotomy holds out scarcely any hope of relief, temporary or permanent. Again, it may appear primarily in the trachea or larynx, and subsequently in the fauces; tracheotomy in such cases may save the life of the patient. Or, the membranous formation may show itself primarily in the fauces, and descend into the larynx. It may stop here or descend still further into the trachea and bronchi. When the membrane is limited to the fauces and larynx, he saw no reason why tracheotomy should not save life. The chance of success must be less, the further the membrane has descended. Again, the membrane may be wholly confined to the larynx, without any deposition of it in the fauces, trachea, or lungs. In such a case tracheotomy offers every chance of success.

If a patch of membrane is seen upon the tonsils or any part of the fauces of a patient with the symptoms of commencing croup, and those symptoms increase in severity, particularly if the respiration becomes more and more obstructed, there is a strong presumption of the formation of membrane in the larynx, and an early and immediate operation is indicated. An early operation seems also justifiable, even if no membrane has appeared in the fauces, when decided croupy symptoms, of a grave character, show an evident progress and increasing severity.

The operation of itself very rarely hastens death or causes unnecessary suffering to the patient, even in those severe cases where, from the extent and locality of the disease, death must inevitably follow. On the contrary, the relief to the respiration, the congested condition of the lungs and other distressing symptoms, is often very marked, and where death does follow, it follows more easily and quietly. The operation is by no means always followed by bronchitis or pneumonia, and when present the case is not necessarily fatal, though the danger is greater. Tracheotomy, as a last resource, finds the patient almost asphyxiated or moribund, and the almost inevitable result is unquestionably hastened by the extent and locality of the membrane, and the mechanical obstruction which it presents, the congestion of the lungs, and the action upon the brain and system generally of the imperfectly oxygenated blood.

Auscultation alone will not furnish, in most cases, any precise information as to the locality or extent of the membranous exudation in the lungs, as the noisy and labored respiration acts strongly in masking and rendering indistinct any respiratory murmur. Percussion and rational signs may help somewhat in determining the condition of the lungs.

Dr. Gray considered that the great relief to the patient, even should the operation prove unavailing in preventing a fatal termination, warrants its *performance, and alluded* to a case within his knowledge in

which, although the patient survived only twenty-four hours, the relief was most marked.

Dr. Lyman remarked that the opinion that had been expressed by English physicians, that death, occurring after tracheotomy in croup, is due to the supervention of pneumonia, would hardly be borne out by the cases that had been recently here reported.

Dr. Jackson remarked that the situation of the false membrane has a very important bearing on the question of tracheotomy. He had never seen any statistical record on this point; he would say, however, from recollection, and in regard to the dissections that he had made in cases of membranous croup, that the membrane is always found to extend over nearly, and, he believed, the whole mucous surface of the larynx, closing up the ventricles, and often lining the under surface of the epiglottis, at the edge of which last it generally stops very abruptly. In one, and perhaps two cases, it has just extended into the upper part of the trachea and there ceased; in a majority of cases, it has ceased toward the lower end of the trachea; not infrequently, it has extended into the larger bronchi; and, in a few cases, it has reached many of the smallest tubes that could be examined with common instruments; the small bronchi, in these last cases, being very generally throughout the lungs quite free from membrane. In the pharynx, the membrane has often been found, sometimes appearing early, sometimes late, and sometimes not at all so far as observed.

The disease has sometimes been called tracheitis, and the membrane has been said to be first formed in the trachea, and to extend from thence upward and downward. Dr. J. believed that an anatomical mistake may have been committed upon this point; the membrane being so much thinner, and so much more adherent, not to say firmer, in the larynx than it is below, its presence might well be overlooked in some cases, and the transparent and very tenacious secretion that is often found in the pharynx and larynx, and which forms so important an anatomical element in the disease, being sponged from the inner surface of the larynx, we may mistake the false membrane for the mucous membrane.

Dr. H. J. Bigelow believed that this operation affords slight hope of recovery from croup in young children. The statistics of Trousseau, so frequently cited in its favor, have not been confirmed by the experience of other practitioners. Upon this point he quoted the late edition of Erichsen's Surgery as competent English authority. "In no instance have I [the author] as yet succeeded in eventually saving a child by this operation; and I think that the general experience of surgeons in this country is unfavorable to its performance. Trousseau, who strongly advocates tracheotomy in croup, has, however, published a large number of successful cases in favor of this proceeding. But even in Paris it is not a very successful procedure; thus it appears that at the Hospital for Sick Children in that city, the operation has been performed 215 times in the last five years, and that of these only 47 were cured. Unless we assume that the disease, as occurring in Paris, is different from the form of croup we meet with here, I think it may fairly be doubted whether an operation could be necessary in m[illegible]hese instances, and whether a large proportion of the child[illegible]ot have recovered under ordinary medical treatment."*

*'s Surgery, second edition, 1857, p. 759.

Dr. B. doubted whether the small percentage of success in operations upon young children in this neighborhood, was greater than that of recovery in bad cases without operation. Trousseau had formerly assured him that even in his successful cases he had operated only as a last resort. Dr. B. did not believe that an earlier resort to operation would arrest that extension of the disease into the lung, to which a fatal termination is usually due, provided the child lives long enough. He referred, however, to the Society's Records for 1853, where, with the details of an exceptional case, with an unusual amount of mechanical interference, he had expressed himself, on the whole, in favor of the operation; but subsequent results have not greatly encouraged this view. Apart from Trousseau's statistics, the arguments may be thus stated:

| FOR OPERATION. | AGAINST OPERATION. |
|---|---|
| The admission of air and the resulting economy of strength. | There is no evidence that this retards the extension of the inflammation to the lungs. |
| Abatement of suffering. | It is difficult to keep the inner tube, and the trachea just below it, free from obstruction by lymph, &c., and severe suffocative paroxysms occur. The suffering may also be relieved by opiates. |
| Prolongation of life. | In some cases this is unquestionable, but generally not to be desired if the disease is to terminate fatally. |
| Without it, the patient may be strangled by disease almost confined to the larynx. | Rarely; and in such a case it is generally difficult, if not impossible, to affirm the sound state of the lung from physical exploration, or in any way to get satisfactory evidence that the disease is confined to the upper part of the trachea, so as to indicate the propriety of operation on that ground. |

In conclusion, the results do not furnish much encouragement, and Dr. B. considered the operation, in the case of young children, optional with the friends, rather than one to be advised by the surgeon.

March 22d.—*Cancerous Tumor of the Larynx.* Dr. Bowditch showed the specimen and reported the case.

Mrs. ——, of Boston, æt. 47, Dr. B. saw for the first time, Dec. 25th, 1857. Her history was as follows. She was never very strong; had been liable to ulcerated sore throat from childhood, perhaps twice every winter, till the past ten or twelve years. Within this latter period her health had been good, until three years past. During these three years she had been growing gradually hoarse, with, at times, complete aphonia. No cough appeared until two weeks before Dr. B.'s visit, and it had never been severe. Her general health had been rather better than previously, except that she had been more easily fatigued. Her menses had been lessened during the three years, and there was, finally, amenorrhœa for eighteen months. She had never been confined to the bed. The hoarseness had been worse during East winds, and country air had always been unfavorable. For two weeks she had had cough, with expectoration of a very small quantity of very adhesive mucus. During the night, this obstructed breathing, and prevented easy sleep. There were no real asthmatic attac

Her appetite had been small, and her bowels regular. She had had no soreness of the chest until two weeks before Dr. B.'s visit; and never real dysphagia during the past year, but all her troubles were referred to the larynx.

On visiting her, Dr. B. found a medium-sized, intelligent woman, looking not very unhealthy, nor emaciated. The most prominent symptom was a very hoarse voice. She complained that it hurt her to talk, and that the "air passage seemed not larger than a knitting needle." There was no distinct tenderness or enlargement of the pomum Adami. The throat looked a little red, with a few enlarged follicles in it. The epiglottis could be seen, and was healthy. The pulse was 60, and quiet, and the skin was normal. She was able to go out and to attend somewhat to her household duties.

The physical signs about the chest were very obscure. There appeared, perhaps, a little less expansiveness about the respiratory murmur at the upper part of the left chest, but no positively morbid sound.

She had been under the care of several physicians, and all considered her case hopeless. Various remedies, local and general, had been resorted to, without the least relief to the hoarseness. Dr. B. ordered a solution of nitrate of silver, in the proportion of one drachm to the ounce of water, to be applied with a sponge every other day; also to gargle with sparkling cider, and to take two drops of fusel oil in whiskey, three times daily, with a generous diet and daily exercise out of doors.

On Dec. 31st, the voice was decidedly clearer, but the dyspnœa was augmented, and the appetite was lessened. The fusel oil was now omitted, and the following ordered; ℞. Angusturæ, ʒi.; vini, Oij. M. Wineglassful night and morning.

Jan. 3d.—Blancard's pills were ordered; the local treatment to be still continued.

15th.—The voice was almost clear, but the dyspnœa was evidently augmenting. It was constantly evident to the patient and bystanders. It was plainly difficult to inspire, and equally so to expire. The cough was likewise worse. Her strength had increased. The wheezing breath obscured all the sounds in the chest, but still nothing positively morbid was discovered. ℞. Syrup. tolutani, ℥ ij.; ext. conii, ʒs.; acid. hydrocyan., gtt. xvi. ʒi. p. r. n.

26th.—Greater dyspnœa, and no appetite. Pulse 84. Patient was evidently getting worse. The nitrate of silver was omitted, and cod-liver oil, with mucilage of gum acaciæ and syrup. tolut., equal parts, were ordered.

A little turtle oil was injected into the larynx, night and morning, with great comfort. The nights became worse. Patient could not sleep but a few moments without a sensation as of suffocation. To sum up the whole case in one expression, she seemed gradually dying by a process of slow strangulation.

The symptoms and treatment continued about the same until March 17th, except that the former were gradually augmenting and the strength lessening. March 16th, the record shows the mind perfectly clear, but the patient desirous of dying, because she was so "*tired of breathing*;" could not swallow without choking. Pulse intermittent.

*All treatment* [illegible]. The injections were discontinued the previ-

ns evening. She died on the 20th, about midnight, without agony, and apparently while asleep.

*Sectio Cadaveris* on 22d.—Body, not much emaciated: one inch thickness of fat along trunk; cartilages of ribs very strongly ossified. Internal mammary vessels distended. The lungs had a pinkish hue and looked perfectly healthy. Only a slight adhesion at the apex of the left. They seemed as if strongly inflated, but no emphysema. Where adherent, there was a small depression, and the lung was condensed there, in amount less than the size of a half filbert. There was also a very small collection of crude tubercles, evidently recent, in the lower part of the upper lobe. A similar group in the apex of the lower lobe of the right lung. On incision, the lungs collapsed freely, and were perfectly healthy, with the above slight exceptions. The heart had a white patch on it. The organ was healthy. Fluid blood and coagula existed in both sides, but not in great quantity. The abdominal organs seemed perfectly normal.

The cause of death was a cancerous mass (so decided by the eye and by the microscope) of the size of a walnut, occupying the right ventricle of the larynx, and projecting downward into the trachea about half an inch. This mass must have interrupted the corresponding vocal cord, and contracted the rima glottidis almost wholly. It presented a red, lobulated appearance, with varicose vessels running over it. On cutting it open, a quantity of a whitish fluid was pressed out, which, by the microscope, was found filled with cancer cells. It had arisen in the cellular structure between the cartilages, and had not involved them. The epiglottis, &c., were healthy.

Dr. Bowditch remarked that the question of tracheotomy was suggested, but not accepted, because the patient was unwilling to have any operation done that would not certainly cure her. The autopsy proved that no real good would have resulted from that, or from forcible entrance from above into the trachea by means of a probang.

April 12th.—*Wound of the Liver.* Dr. W. E. Townsend reported the case.

On Friday, Feb. 26th, shortly after 5, P.M., W. R. C. was stabbed in the epigastric region with a knife six inches long, an inch wide, and for three inches double edged. He was seen in half an hour by Dr. Clark, who found him sitting in a chair, very faint. He immediately had him laid upon a mattrass, applied a compress and bandage to the wound, administered restoratives, and when he had sufficiently rallied had him carried to his home in Auburn court. Dr. C. was satisfied that the knife had penetrated the liver, and said there was not much external hæmorrhage.

Soon after 8, P.M., Dr. Townsend saw him and found him lying on his bed, faint and partially insensible. There was no bleeding from the wound. The pulse was rapid and feeble. He was ordered morphine and brandy, if necessary, during the night.

Feb. 27th.—Patient had a quiet night, and is this morning rational, complaining of no pain in the wound or elsewhere. Bowels full, but not tender. Pulse rapid and feeble. Skin hot. Breathing short. Some cough and hoarseness of voice. Reports that he has had a bad cold and cough for some days, but was otherwise well. No bleeding from wound. His water was drawn off, as he was unable to pass it

while lying down; an enema was given, which operated well, and hot fomentations were applied to the abdomen. Half a drachm of sweet spirits of nitre was ordered every two hours. Bandage not disturbed.

28th.—Abdomen softer, not tender on pressure. Patient passes water freely; no pain from wound. Slight yellow tinge about the eyes. The compress being displaced, the bandage was removed. The wound, an inch long, with pointed ends, was in the epigastrium, a little to the right of the median line, and just outside the cartilages of the sixth and seventh ribs; during this day there was an oozing of dark colored blood from the wound. Cough and other symptoms about the same. Ordered Brown mixture, p. r. n.

March 1st.—To-day, more feverish and more yellow. Pulse 130. Tongue coated. Patient is inclined to doze. ℞. Calomelanos, gr. v.; jalapæ, gr. x. M. To be followed by oil and lemon juice, if necessary. Oozing from wound continues.

2d.—Medicine operated well; patient feels brighter and much relieved. No tenderness or hardness of bowels. Pulse 110. Flow of blood from wound ceased. Yellowness increases. Omit fomentations and nitre.

3d.—Feels much better. Cough diminishing. Pulse 98. Light colored discharge from bowels. Yellowness intense. Asks for, and is allowed, chicken broth.

4th.—Is not so well this morning. Was rather flighty yesterday afternoon, and slept none in the night. Slight appearance of pus from wound to-day. Pulse slower; skin cooler; cough better. Broth advised to be continued, as he appears to relish it. Spongio piline was ordered to the wound; and one drachm of the following to be taken every two hours. ℞. Extracti valerianæ fluidi, ℥i.; morphiæ sulphatis, gr. i. M.

During this day he became more delirious, striving constantly to get out of bed, seeing objects on it, and persons in the room; his hands trembled, he talked incessantly, and presented well-marked symptoms of delirium tremens. The valerian was continued during the night, and wormwood tea given him to drink. He had this night two or three hours sleep, and on the next day, March 5th, was quieter, though he still talked constantly. During this time the yellowness became of a deep orange color, which did not fade in the least till after the commencement of the *post-mortem* examination.

On the morning of March 6th he was decidedly better; he had slept well through the night, his mind was clearer, and he complained only of feeling stiff and sore all over his body. Pulse 96. Tongue cleaner, though it had never been badly coated. The discharge from the wound had increased. His urine was very high colored. Some time during the day he had a slight attack of nose-bleeding, to which, by report of his wife, he was subject; this returned about noon of the next day, when it was checked by cold affusion, but recommenced in the afternoon, and was again stopped by plugging both nostrils at the evening visit; this day his appetite failed him, and his wound ceased discharging, though his strength was not much reduced. The next morning, March 8th, he was reported to have slept none; he had low muttering delirium, and his pulse was feeble. Bleeding had begun slightly at 6 [illegible] and continued till the time of the visit, when it was again [illegible] by further plugging the nose. Stimulants were

administered as freely as he could be induced to take them, but he failed rapidly, and died at 5½, P.M.

*Sectio Cadaveris.*—Body in good condition. Rigor mortis as usual. No ecchymoses visible. Skin and eyes very dark yellow. In the epigastric region, just outside of the cartilages of the sixth and seventh ribs, and to the right of the median line, was a cut an inch long through the skin; in the rectus muscle beneath, it was two inches long and irregular in shape, as if the muscle had contracted violently whilst perforated by the knife; this was surrounded by an ecchymosis to the extent of six or eight inches. Upon opening the cavity of the abdomen, the perforation of the peritoneum was almost closed, and the cut in the liver looked as if cicatrization had taken place; moderate pressure drew it open again, and showed just at the junction of the two lobes of the liver a wound two inches long, extending inward, downward, and to the right, some three inches, entirely perforating that organ, and terminating at its transverse fissure. The gall-bladder was very nearly empty. The liver looked healthy, though it was much enlarged, weighing six pounds and three quarters; it was not fatty. All the blood in the body was in a liquid state, and under the microscope gave evidence of the presence of bile. Almost all the tissues were stained a deep yellow. There was considerable effusion under the pia mater and in the ventricles. The brain was healthy, as were all the other organs examined, with the exception of the heart, which was covered with lymph from recent pericarditis.

Dr. Jackson thought the yellowness of the surface in this case interesting as diagnostic of injury to the liver, and alluded to two or more cases of fracture of this organ, in which the same appearance was observed.

April 26th.—*Abdominal Inflammation preceding and following delivery at four months, and terminating in Pelvic Abscess; Death.* Dr. Homans reported the case, for which he was indebted to the kindness of Dr. Mann, of Roxbury, the attending physician.

Mrs. W., 23 years of age, of good constitution and always in the enjoyment of good health, was married at the age of 16, and in about a year gave birth to a child, and three years since to another. These labors were easy, and recovery rapid, in the latter remarkably so, she having ridden out within a week from delivery. Her usual good health attended her until the night of the 5th of February, when having spent the evening previous with some friends, and eaten oranges and some other things, she was seized with what she supposed to be colic, and suffered severely all night. She first had strong rigors, which were soon succeeded by violent pain in the abdomen, high febrile excitement, nausea and vomiting.

Dr. Mann was called in, the next morning (6th), and found her lying in bed, with the knees drawn up, the abdomen distended and quite painful, tongue coated, great thirst, and pulse 140 per minute. By the prescription of the Doctor, she took calomel combined with morphia, which was repeated at the expiration of two hours, and followed by a saline cathartic; warm anodyne fomentations were also applied to the abdomen. At the evening visit Dr. M. learned that the cathartic had produced several copious discharges, and that much relief was obtained. She informed him that she supposed herself pregnant, and about

four months advanced. The pulse was reduced to 112, with considerable distension of the abdomen, and tenderness, particularly in the right iliac region. Liniments of soap and opium, ol. terebinth. and chloroform were applied to the abdomen, and the following to be taken in doses of a teaspoonful every two hours until sleep was produced: Liquid extract of opium, ʒiv.; chloroform, ʒi.; syrup of orange peel, ʒiij. 7th.—She slept four hours, and had a comfortable night after taking a second dose of the mixture. Pulse 104–105. A febrifuge-mixture was now prescribed, and fomentation as before. Dr. H. was now called in consultation, about thirty-six hours after the attack. Countenance rather anxious; heat of surface above natural; pulse 106 to 112; tenderness of abdomen, especially in the left iliac region; some distension of the abdomen, together with a degree of tenderness throughout. A continuance of the treatment already prescribed was advised. From this period to the 20th, Dr. M. says she continued to improve, the distension becoming less, the tenderness abated and the pulse reduced to 90. In the afternoon of this day, labor pains commenced, slight and at intervals of from twenty to thirty minutes. At 9, P.M., on examination, the os uteri was dilated to the size of a dime, and the pains were pretty active; in three hours, the os being fully dilated, the membranes were ruptured and labor was speedily accomplished, the placenta following the fœtus after a few minutes, by the efforts of nature. The flowing was quite moderate. Fœtus weighed about four pounds. After taking an anodyne the patient remained comfortable for about forty hours, when severe pains commenced. Up to this date (Feb. 22) there had been no flooding, but now it became constant and profuse; patient's aspect pallid. Plugging the vagina was resorted to, and the hæmorrhage abated. Retention of urine took place, and the catheter was used for several days. During this time, vomiting or constant nausea annoyed her, with frequent diarrhœa and flooding.

At this time, Dr. Homans was again called to visit her, with Drs. Windship and Mann, and found symptoms as above described, with pulse 120, tongue coated and moist, bowels distended and tender. The flowing, nausea and vomiting, retention of urine, tenderness of abdomen with distension, attended her for several days. On the 27th, there took place a diminution of suffering from all her bad symptoms. 28th, continued to improve. On 29th, she complained of very severe pain in the left iliac region and in the groin, and extending down the limbs. The diarrhœa increased, and nausea, with occasional vomiting, became excessive. In a few days the pain grew less, the vomiting ceased, the nausea abated, and fæces of fair consistence came away; the urine was also passed without the catheter. This state continued about two weeks. March 16th, having complained of extreme pain in the lower part of the back, as she expressed it, on examination, a large carbuncle was found in the left nates, near the anus. From this period Dr. H. saw her daily. Pus was discharged freely from the rectum, as well as from openings near the anus, until the 27th, when she felt much relieved of the annoying symptoms above enumerated. But this comfortable state lasted only a few hours, when the pain in the left iliac region returned with increased violence, and was only endurable while pressure was made by the hand of an assistant upon the *part.* The pulse soon became very frequent, 130 to 140; nausea in-

creased until a few hours before death, which took place 30th March, discharges of pus taking place from the bowels, which continued after death.

This is the history of an interesting case, and it is to be regretted that we are obliged to remain in ignorance of the morbid appearances, an examination *post-mortem* having been denied.

April 26th.—*Thickened Bursa over the Patella.*—Dr. Gay showed the specimen. The patient, Ellen McG., aged 32, had a fall four years ago, striking upon the right knee. On the following day, the whole knee became swollen and very painful, and she was confined to her bed for five weeks. She had always supposed that the patella was broken. She thought that the swelling had considerably increased within two months. Having consulted some one, she was told that a large nerve running down on each side of the tumor was nearly dead, and that if blistered the nerves would be restored, and the swelling would then disappear. Blisters were accordingly tried, but without producing any diminution of the swelling.

When Dr. Gay saw her, the blistered surface, and the skin around it, were highly inflamed and nearly erysipelatous. She was delirious, pulse 120, face flushed, hot and dry, and the tongue covered with a brownish coat. These symptoms soon entirely disappeared, and the skin over the tumor became movable, and could be easily drawn into wrinkles.

The tumor was situated more particularly upon the lower half of the patella and upper part of the ligamentum patellæ, being rounded in form and more or less movable.

The operation consisted of a straight longitudinal incision, the dissection of the skin from the tumor, and of the tumor from the bone. One small artery only was tied.

After removal, the tumor was found to be 2½ inches long, 2¼ wide, and a little over one inch in thickness. It was nearly circular, convex upon its upper, and with a heart-shaped concavity upon its lower surface, of a fibrous hardness around its borders, and softer toward the centre, feeling as if liquid were present. On opening the tumor, a small quantity of yellowish viscid fluid presented itself, together with a quantity of what closely resembled sago.

April 26th.—*Congenital Umbilical Hernia.* The account of the case, sent to the Society by Dr. Daniel Chaplin, of East Bridgewater, was read by Dr. George Hayward, Jr.

On August 18th, 1856, Dr. C. attended Mrs. —— in confinement at West Bridgewater; the labor was natural, and the child was born in about four or five hours. At the time of birth, a peculiarity was noticed about the navel, which, upon examination, was found to be owing to a congenital umbilical hernia. The hernial tumor was of the shape of a flattened sphere, and measured around the umbilical opening 7½ inches, around its largest part 9 inches, and in its short diameter 2½ inches. It was covered externally by an expansion of the outer part of the umbilical cord (which had been tied about five inches from the tumor), and this, with the peritoneum, formed a transparent membrane, through which could be distinctly seen the peristaltic action of the intestines, and an object of a pale red color, which appeared to be the

liver. Within a few hours after birth, the membrane covering the tumor became somewhat opaque, but what was supposed to be the liver could still be distinctly felt, though not so clearly seen as before. Indeed, even as late as the second day, Dr. Hichborn, of North Bridgewater, who saw the case, could indistinctly see the object and feel it very plainly.

The hernia could only be partially reduced; but, as it was not strangulated, the bowels having acted freely from castor oil, and the child appearing to be perfectly well, Dr. C. decided (having previously consulted with Dr. Hichborn, of North Bridgewater and Dr. Hayward, Jr., of Boston, who agreed with him on the subject), to continue the treatment at first adopted. This consisted merely in applying a piece of linen, spread with althæa ointment, over the whole tumor, with a compress so secured as to make a moderate pressure upon it. Dr. C. was the more inclined to pursue this course from having found, in "Underwood on Children," a description of a similar case (to which is applied the term "hepatomphalos"), where the hernial tumor was treated in this way until it gradually retracted, and at last entirely disappeared.

The tumor lessened daily in its short diameter, but enlarged at the navel, which seemed to be owing to a change in the position of the liver. When first seen, it lay at a right angle with the linea alba; as the tumor decreased it assumed an oblique position with regard to it, and gradually passed round into a direct line with it. On the fifteenth day it seemed to be tipped up on end, as it were, and on the sixteenth it entirely disappeared, having slipped into the cavity of the abdomen. The external covering of the tumor began to shrivel up a few days after the child's birth, and suppuration, attended with some fœtor, came on underneath it; by the twentieth day it came off entirely, leaving the tumor covered with healthy granulations, and with a place on one side where the ends of the bloodvessels of the umbilical cord, about an eighth of an inch long, could be distinctly seen.

The child continued to be perfectly healthy, and grew very well, the tumor gradually diminishing, until, at the end of five months, all that remained of it was a little projection at the navel half an inch long, and of about the diameter of a thimble, which projection was not increased by crying.

When last seen he was nineteen months old, a well-grown and perfectly healthy child, having at the navel a circular space an inch and a quarter in diameter, formed of close wrinkles converging towards the centre, where there is [illegible]nence of the size of the end of a thimble,

and about a quarter of an inch high, with a mark like the cicatrix of an old wound running through it. The wrinkles on the prominent part are finer than those on the flat part, and the whole is covered with natural-looking skin.

The photograph, from which the accompanying cut was made, was taken when the patient was three days old.

MAY 10th.—*Renal Calculi.*

Dr. Warren showed two renal calculi, from a man 30 years old. They had been discharged at two different periods, in each instance the stone being about six months in passing the ureter. They were very irregular in shape, and about the size of a large pea. The pain was not constant. From cases that had come under his observation he had generally found from two to three weeks the average time occupied by the passage of these calculi.

At a subsequent meeting Dr. W. showed a small round renal calculus of the size of a small shot, which passed in ten days.

MAY 10th.—*Epithelial Cancer of the Glans Penis.* Dr. GAY reported the case.

The patient was 60 years old. From his account he had had more or less trouble in passing water, consequent upon a stricture of 28 years' standing. A bougie has been introduced into the bladder at times ever since. For the first few years it was done very frequently, but for the last fifteen years the patient himself introduced the instrument, generally once a week, and sometimes not oftener than every two or three months. Three years ago, he noticed an eversion of one of the lips of the meatus urethræ, together with a slight soft swelling upon it, which he supposed was proud flesh. This remained stationary for some months. The bougie was passed as usual, and a solution of acetate of lead injected into the passage. Six months from the appearance of the eversion and swelling of the meatus, he felt an induration in the left half of the glans penis, about the size of a pea, which slowly but steadily increased. The glans did not enlarge, but became harder and harder, so that he soon noticed that the right half of the glans was similarly affected. He had occasional darting pains in the penis, scrotum and along the thighs.

Last November, he strained himself, and very soon felt a small, hard, immovable lump on the under surface of the urethra, just behind the glans. The pain now increased, and also the difficulty in passing water. Up to this time the prepuce could be easily drawn back. The lump continued to increase toward the skin, which in a few weeks prevented any moving backward of the prepuce, so that there was a phymosis. In December, the skin was ulcerated, and nitrate of silver was applied without relief. The ulceration enlarged slowly. Great difficulty was now experienced in passing water, which came away very slowly and by drops. In February, the darting pain was more frequent. For the last two months there had been no particular change in the symptoms, except that he observed some drops of urine escape from an opening in the ulcerated skin beneath the frænum, indicating a communication with the urethra. It also took a longer time for the urine to dribble away. From the orifice of the prepuce, there escaped, on pressure, an opaque, milky-white discharge. The phy-

mosis continued, keeping the glans entirely out of sight. To the touch, the glans seemed smaller than natural, and of a scirrhous hardness, particularly its anterior upper half and the whole of its under surface. From the under surface of the urethra behind the glans, and proceeding from it, was a hard, round mass of the size of a pipe-stem, which terminated externally in the ulcerated portion of the skin. This ulceration was no larger than a ten-cent piece, and had by no means an unhealthy red look. There was no glandular enlargement in the neighborhood of the penis. A few days previous to the operation, the pricking, darting pain had become more frequent and acute.

The operation was performed by making an incision through the penis, just anterior to the scrotum. The hæmorrhage was very free, and seven or eight ligatures were applied before it was arrested. A catheter-bougie was then introduced into the bladder, and retained there by tape.

On a section of the part removed through the dorsum, the disease was fully exposed. The sound on cutting it was very similar to that noticed in scirrhus. The disease seemed to have very well-defined borders for an epithelial cancer, occupying more particularly the inferior and anterior surface of the glans. The canal of the urethra, at a point just behind the glans, was so contracted as hardly to admit the passage of a common probe. From the urethra, near this spot, was a small opening, which passed through the hardened mass and terminated externally in the ulceration.

May 24th.—*Calculus obstructing Labor; Vesico-Vaginal Fistula; Lithotrity through the Fistula.* Dr. Hodges showed fragments of the calculus and related the case.

The patient was an Irish woman, 32 years old, sixteen years in this country. She had always lived in the western part of the State. For five weeks preceding her last confinement, two years and seven months since, she had painful micturition for the first time in her life. Her labor lasted seven days, and the physicians in attendance attributed the delay to the presence of a stone in the bladder. The child was delivered without instruments. In ten days she was up and about the house, and for five weeks had no trouble. She then began to have offensive and thick purulent urine, and, finally, at the end of seven weeks, took to her bed from inability to walk about or sit down. She was confined to it for eleven months, and during this period she passed calculi from the bladder, sometimes as many as four at a time, and varying from the size of a pea to that of a walnut. She had passed none for a year. A catheter detected the existence of a calculus, and on examination per vaginam, a large vesico-vaginal fistula was found, admitting the finger, which came in immediate contact with the calculus. The vagina and inside of the bladder felt rough to the finger, like sand-paper, from the deposit of phosphates. A pair of lithotomy forceps, introduced through this aperture, crushed a very soft stone, and five drachms of fragments were removed. Great relief has followed the operation.

May 24th.—*Extensive softening of the Brain; Apoplexy; remarkable absence of the usual Symptoms.* Dr. Ellis reported the case.

An unmarried woman, 27 years of age, who had always enjoyed

pretty good health, became feverish on May 10th. On the following day erysipelas made its appearance upon the face, but by the 13th she was nearly well. At 10, P.M., she noticed some numbness of the left arm and leg, which by 3 o'clock became perfectly paralyzed, sensation being at the same time entirely lost. At 8, A.M., on the following morning, she had a convulsion, followed by four others, the last at 10 in the evening, each occupying about 40 minutes. Ether was administered, but she was at no time unconscious, and actually spoke while convulsed, and after the cessation of the attacks the intelligence was perfectly good. There was at no time any dilatation of the pupils, and only slight pain in the head. The muscular power and sensation returned, to some extent, in the left arm on the day of her death, and no stupor was noticed until that time, when there was some picking at imaginary objects, and stertor. On the night of the 15th, there was constant flexion and extension of the right arm. Half an hour before death, the pulse was 76, firm and steady. The bowels were easily acted on and under perfect control, as well as the bladder.

*Sectio Cadaveris.*—On examination of the head, the convolutions of the brain were found somewhat flattened. A decided extravasation of blood had taken place within and beneath the pia mater, over the upper part of the right hemisphere. The same was noticed, though much more limited, at the posterior part of the left. Much of the corresponding portions of the brain was, to the touch, decidedly softer than usual. On incision, a large part of the substance of the right hemisphere, from the surface to the level of the lateral ventricle, was very soft, and here and there almost deliquescent, mostly white, but in points slightly yellowish. In these softened portions, both gray and white, extravasations of blood were seen, mostly in the form of puncta, single or in groups. In the cortical, and a portion of the medullary substance on the right side, the tissue was so infiltrated with blood as to resemble very closely a coagulum. Similar appearances were noticed elsewhere.

The posterior part of the left hemisphere presented precisely the same appearances, although the extent of the disease was much less. The other portions of the brain were sufficiently healthy. The lateral ventricles contained the usual amount of serum. Nothing remarkable was found on examination of the other organs.

Judging from the fact that the softening was so extensive, and the apoplectic points so widely disseminated, it is altogether probable that the former was the primary lesion. With regard to its cause, nothing was ascertained. A microscopic examination of the diseased parts was unfortunately omitted, and no obstructed vessel was found.

May 24th.—*Rupture of the Perineal Artery in Labor; Laceration of the Perinæum.* Dr. Ainsworth mentioned the case.

Mrs. H. was brought to bed with her first child May 12th. The labor was lingering. After twenty-four hours, ergot, in the form of tincture, was administered to the extent of one ounce. In the course of six hours, this failing to arouse labor pains, the forceps were applied, and she was successfully delivered of a living child weighing twelve pounds. An extensive rupture of the perinæum was produced by the passage of the child's head; not, however, extending to the sphincter

[illegible] felt firmly contracted at the lower part of the [illegible] about ten minutes, slight traction was made [illegible] was surprised to find under the clothes a large [illegible] withdrawing the hand, spots of blood were seen on [illegible] those produced by a bleeding artery. An exami- [illegible] transverse perineal artery to be ruptured, and bleed- [illegible]. A ligature was passed around it, and the case [illegible] accident.

[illegible] *Distension of the Uterus. Rupture of the Left Fallopian* [illegible] stated the case.

[illegible] was a woman 40 years of age, large and fat. About [illegible], she had a very severe confinement, and had never [illegible] since. For the last nine months, she had been for the [illegible] confined to her bed, and suffering extreme pain. Dr. Buck- [illegible], on examination of the abdomen, found a large, firm [illegible], which he at once recognized as the uterus distended by the [illegible] menstrual fluid. When Dr. W. saw her in consultation with [illegible], this tumor was very prominent, standing out in bold relief [illegible] abdomen. Its upper part, toward the sternum, was flat; be- [illegible] the pelvis, round; and in its centre was a deep depression. [illegible] of the vagina, this canal was found to terminate in a [illegible]-sac, and not the slightest mark of the os uteri could be [illegible], nor anything to mark the point of its obliteration; a [illegible] roughness was to be felt on the vesical side of the vagina. [illegible], no tumor could at first be found; but by pressing the [illegible] up into the pelvis, the point of a firm, solid mass, of [illegible] could be reached. The patient being in great suffer- [illegible] decided to appoint a day for cutting down at the upper [illegible] of the vagina, and attempting to reach the tu- [illegible] the day before the one fixed for the operation, Dr. Brown [illegible] Dr. W. to say that it would be unnecessary, as very shortly [illegible] investigation had been made, a bloody or tarry discharge [illegible] had commenced to flow, and had continued to do so [illegible] accompanied by forcing uterine pains, and with a great [illegible] of the abdominal swelling. Under the circumstances, it [illegible] best to make an examination with the speculum, on the [illegible] in order, if necessary, to take the opportunity of en- [illegible] into the uterus. A speculum, being introduced, [illegible] at the upper part of the vagina, a thin, bladder-like [illegible] which, by a small opening, the tarry fluid exuded more [illegible] pressure was made on the abdomen. The speculum be- [illegible] the finger at once penetrated the thin partition alluded [illegible] be carried for some distance, in a curved direction, to- [illegible], being prevented from passing toward the abdo- [illegible] tumor, which appeared to be the uterus, [illegible] fluid. A catheter being passed into the bladder, [illegible] to be forced down into the pelvis, and the finger [illegible] beyond it. As it was impossible to form any [illegible] of things, it was decided to temporize, especially [illegible] continued, and the patient was getting ease. In the [illegible] be stated that the right lobe of the abdominal [illegible]. The patient suffered no inconvenience or [illegible] which [illegible] slight one.

The following day, suddenly, she was seized with a violent pain in the abdomen. Dr. Brown being called, at once detected the signs of high peritoneal irritation, which continued for about two days, when the patient died.

An examination explained the mystery. The right lobe of the tumor had been formed by the uterus, which had emptied itself through the vagina. The left lobe consisted of the left Fallopian tube, enormously distended into a very delicate sac, by the retained menstrual fluid. There was no communication between the Fallopian tube and the uterus; and the former had ruptured and discharged its contents into the abdominal cavity, causing death. This tumor it was which was felt through the walls of the vagina and uterus, which had been forced over into the right groin, and caused the difficulty in the diagnosis. The cavity of the uterus was continuous with the vagina, the os uteri being obliterated. Dr. W. said that in one or two other cases of occlusion of the vagina which he had reported to this Society, both Fallopian tubes, in a distended state, could be felt, lying on the uterus, but were completely emptied by the operation, at the same time with the uterus.

May 24th.—*Fracture of the base of the Skull, and Rupture of the opposite side of the Brain.*

Dr. Warren said that a woman had been brought into the Hospital the week before, May 18th, and had died after a few days, with the following very deceptive symptoms. She was reaching out of a third-story window, when she lost her balance, fell first on a shed and from thence into the street. She was taken up insensible; she however soon recovered herself sufficiently to speak, though incoherently, and was supposed to be under the effects of opium, which she was in the habit of taking freely, and a large bit of which was found in her pocket. When brought into the Hospital, a wound was discovered over the right parietal bone, but the finger being passed in could detect no fracture. The head was carefully examined in every direction, but no fracture could be found. The patient exhibited signs of concussion, but none of compression, of the brain. There was no vomiting, no dilatation of the pupils, no bleeding from the ear—denoting fracture in that direction. She was uneasy, restless, like a person under the influence of spirit, to which, and opium, her symptoms were mainly attributed. She gradually improved, and on the third day got out of bed, to search the drawer of the table for the opium which had been taken out of her pocket. On the day when she seemed much better, and answered the questions of the nurse coherently, a friend made her a visit, and brought her a bit of opium. The same night, she suddenly died.

At first it was very naturally supposed that the opium which she had taken was the cause of the sudden change in her symptoms, but the *post-mortem* examination, made by Dr. Ellis, revealed the following very severe injuries of the skull and brain.

An extensive fracture was found at the base of the skull, on the right side, passing behind the auditory foramen, and into the foramen magnum; this was met by another fracture at right angles to it. On raising the dura mater from the opposite side of the brain, a layer of blood was found spread over the whole of it, and the middle lobe of the cerebrum was most extensively lacerated.

In this case, nearly all the symptoms seemed to be explicable by supposing concussion combined with a state of delirium tremens, caused by the constant use of narcotics; and without an examination after death, the fatal termination would have been attributed to this cause, brought on in the system by the shock from the fall, and assisted by the dose of opium given to her that morning.

MAY 24th.—*Softening of the Brain; Absence of many of the usual symptoms of such lesion; Angina Pectoris; Disease of the Coronary Arteries.* Dr. AINSWORTH related the case.

The patient was a gentleman about 55 years of age, who had been for many years engaged in active business, from which he was obliged to retire about two years before his death, on account of severe and repeated attacks of angina pectoris; with this exception, his health was good. The habit of body was full and florid, and the temper and disposition amiable. About nine months before his death, he had paralysis of the facial nerve on one side, from which he recovered. About six months before that event, his gait became uncertain and faltering; at the same time, his disposition became exceedingly irritable; though I cannot learn that any of his faculties were impaired. The attacks of angina pectoris increased in frequency, and he died apparently in a paroxysm of that disease.

On removing the calvarium, a large cavity was seen occupying about half the right anterior lobe of the cerebrum; the pia mater and arachnoid were adherent to the walls of this depression, the bottom of which was formed by the layer of white substance which makes the wall of the lateral ventricle. There was no appearance of old apoplectic centres, the surrounding cerebral substance being of healthy color and consistence: the optic thalamus of the right side was considerably softened at its centre; the brain was otherwise healthy. Both coronary arteries were obstructed by a deposit of atheromatous matter about an inch from the aorta; the heart was in other respects healthy. No other organs were found diseased.

MAY 24th.—*Dislocation of the Tibia and Fibula backward upon the Os Calcis.* Dr. H. J. BIGELOW mentioned this case, as somewhat rare; being of three or four months' standing. There is almost entire obliteration of the heel. The patient walks pretty well with a cane. The accident occurred in jumping from a vehicle, the foot having been caught behind. The foot was at first turned at right angles with the leg.

MAY 24th.—*Laceration of the Perinæum, occurring during labor in a girl 13 years old; conception having taken place at 12 years and 3 months.* Dr. H. J. BIGELOW reported the case.

The patient was a farmer's daughter, who was delivered of a child one year ago, being then 13 years and 11 days old. She was small, rather slender, and not particularly developed. The rent extended nearly to the top of the sphincter, from three fourths of an inch to an inch up the anus, so that there was a constant tendency to the passage of fæces, particularly when there was looseness of the bowels. The skin had formed over the laceration when Dr. B. saw it, and he advised the operation to be deferred; the patient recovered without it. She is now perfectly well, the upper part of the sphincter having

assumed the function of the whole muscle. The child was of average size and perfectly healthy.

JUNE 14th.—*Aneurism of the Arch of the Aorta.* The case, reported by Dr. Warren, of Waltham, was read by Dr. BOWDITCH.

F. C., 36 years of age; went to sea when 18 years of age; was a sailor for several years. In the first part of his going to sea, which was on board the U. S. ship Ohio, he was very sick with fever, and was treated at the Chelsea Hospital. On his recovery he was discharged from the service. Eight years since, when in the East Indies, he fell from the mast-head, a distance of about sixty feet, to the deck of the vessel. Four years ago he was struck on the left side of the chest, in front, by a horse, causing severe injury. Had suffered considerably from palpitation nearly fifteen years—this often obliging him to stop and rest when at work, and "particularly when going aloft, on board the vessel." In November, 1856, when hanging a barn door, a gust of wind struck it, causing it to fall upon his head and left shoulder, crushing him to the ground, as he said. During the winter and spring following, he suffered severe pain in the upper part of the left side of the chest, particularly near the junction of the clavicle and sternum, and extending to the left shoulder and down the arm, often obliging him "to stop and rest when milking." He also had a severe cough during this time. About the first of May, 1857, he first perceived a pulsating tumor, about the size of a pea, immediately above the left clavicle, and quite near the left sterno-clavicular articulation. The tumor steadily increased, the pain became more severe, particularly at the spot above mentioned, and the cough continued, until about the last of July, when one day, while breaking off corn in the field, he felt something give way at the junction of the clavicle and sternum. This proved to be the separation of the articulation. The pain and distress at the time were intense. The pain diminished considerably, and the cough soon ceased entirely.

The tumor continued to increase, forcing the clavicle upward and forward.

I first saw the patient toward the last of November, through the kindness of Dr. H. Hosmer, of Watertown, who had occasionally visited him since July. Since then he has been under my constant observation and attendance. At the time of my first seeing him, the tumor measured between eleven and twelve inches in circumference at the base, and was prominent about two inches. In January, the right sterno-clavicular articulation gave way, and on January 30th, when the first ambrotype of him was taken, the tumor measured fourteen inches in circumference at the base, six inches in its longest diameter, three inches in its shortest, and two and a half inches in its greatest prominence. It extended downward and to the left, under the clavicle, over the first and second ribs, and upward to the right, about two inches above the sternum, and slightly rose over the right sterno-clavicular articulation. The tumor steadily increased—during the last three weeks of life, rapidly, and greatly downward and toward the shoulder and axilla. In the nine days following the 19th of May, it increased five inches in circumference. On the 31st of May, two days before death, when the *second* ambrotype of him was taken, the tumor *measured twenty-seven inches* in circumference at the base; a

line drawn over it, in its greatest length, measured fifteen inches; one at a right angle to this, over its greatest prominence, thirteen inches. The tumor extended from the inner third of the right clavicle to the left shoulder and axilla, and downward to the nipple, which it raised. Its greatest fulness was next the shoulder and downward. When the patient was in his usual upright position, his chin touched, almost rested, on the tumor. The pulsations were powerful, particularly at times.

The sounds of the heart were somewhat muffled, and there was a slight bellows-sound at the apex during the systole. The pulse at the wrist was barely perceptible; at the bend of the arm it was a mere thread. The aneurismal thrill and *bruit*, at first, were considerable—latterly very slight. The respiration was feeble in the region of the left scapula; in other parts of the chest loud—a sort of sucking and blowing respiration. During the last five or six weeks of life, the lungs were not auscultated. During the last month of life, the urine was scanty, with a thick sediment. His feet and legs became very œdematous. After the middle of February, the distress greatly increased, and during the three days preceding March 11th, he was unable to swallow, was quite feeble, and began to take nourishing enemata. On the morning of the 11th, about 5 o'clock, he was seized with severe distress in the middle of the chest, a little to the left of the sternum, "and felt something give way." I saw him at 8 o'clock. The heart's action was then very much disturbed; pulsations rather feeble, slow and intermittent. The impression conveyed, when the hand was placed on the tumor, was almost that each pulsation would be the last. The heart's action gradually became as before. He was almost entirely relieved of the dysphagia, and experienced it but little afterward.

About the first of April, a thin, prominent spot was first observed at the place where the tumor at last burst. This increased, and became quite prominent, until its extent was nearly circular and about an inch and a half in diameter. As the fulness of the outer portion of the tumor increased, however, this prominence became barely perceptible.

During Sunday night, May 30–31, an ecchymosed spot appeared on the left portion of the thin place; this extended to the left, upward and to the right, over a space, at last, of eight or ten square inches, and became almost black in appearance. During the day of the 31st, a large vesicle formed where the ecchymosed spot first appeared, which was opened at my evening visit, and nearly two teaspoonfuls of serous fluid escaped. During the last thirty-six hours of life, the distress and pressure increased. A slight abrasion of the skin on the thin place having occurred a few days previous, followed by a slight watery discharge, the place had been covered with a small cloth, on which was spread cream and fresh butter.

At the morning visit, Wednesday, June 2d, a small spot was noticed on the thin place, which had evidently grown much thinner during the night. At 7 o'clock, P.M., the time of the evening visit, I found blood had appeared through the cloths covering the tumor, and was told that on removing them, at 2 o'clock, a slight bleeding was found to have occurred, and the attendant would not remove the small cloth. The cloths were removed, and as I was carefully lifting the small cloth covering the thin place, the tumor burst at that spot, and the blood *spirted to the* distance of 8 or 10 feet. I instantly applied my finger

to the opening, and the stream of blood was stopped. The pulsations, pressure and fulness of the tumor became very great; these, with the movements of the patient, caused the blood to escape at every moment. It was evident that if the hand were removed, the blood would burst forth in a torrent. Cloths, sponge, if it were possible to apply them, would be of no benefit. Death was inevitable; and there were but two ways for me to act—either to take my hand off, and let the patient die at once, or keep it on the tumor until he should sink from the gradual loss of blood. I chose the latter. The blood continued to escape, once in a large stream on the face and chest of his brother, who sat holding the bowl opposite him, in consequence of the patient suddenly moving, as I was quickly changing my hands on the tumor, being obliged to do so from fatigue; and he gradually sank and died easily at 9 o'clock, two hours after the bursting of the tumor. The amount of blood lost was estimated to be over one hundred ounces.

The patient bore his sufferings calmly and manfully, was fully aware of his situation, and often expressed a strong desire that a thorough examination should be made of him after death, and that I would dispose of the parts as I saw fit. The same calmness was also manifested when the tumor burst, and while the blood was flowing from him; he said that he must die, and entreated me to take my hand away, and let him die at once.

*Sectio Cadaveris*, by Dr. Ellis. The aneurism, at the time of the examination, was considerably less prominent than before death. It extended from a point situated about two inches outside of the right sterno-clavicular articulation, downward to the third rib, and upon the other side to the axilla. A portion of skin between four and five inches in diameter, over the most prominent part of the tumor, was discolored by the effusion of blood beneath the surface. In the thinnest part of this, near the inner extremity of the left clavicle, was a slit about two thirds of an inch in length, through which the blood had escaped at the time of death. Here the tissues were not more than a line in thickness.

The aneurism commenced abruptly, from two to three inches above the aortic valves, and extended upward higher than the clavicle, from which point the blood had made its way between the external surface of the ribs and the soft parts, as far as described. The descending aorta was also involved, the artery not regaining its natural size until a point was reached three inches above the diaphragm. No decided line of demarcation existed between the vessel and the aneurism.

Both clavicles were completely separated from the sternum, and projected into the sac. The first rib on the left side was also nearly or quite separated. On examining the ends of these bones very small points were found, which appeared to be perfectly denuded. The remaining portions were covered with a very thin, smooth membrane, continuous with that lining the aneurism. Between the ribs and the left pectoral muscle was a large coagulum, lying entirely to the left of the perforation.

The coats of the artery were wrinkled, and contained much atheromatous deposit, cartilaginous-looking plates, and some that were calcareous. The lining membrane could be traced far into the sac, but was finally lost.

The opening of the left carotid artery was about a line in diameter;

that of the subclavian much contracted, though larger than the other. The mouth of the arteria innominata was also quite narrow.

The left ventricle of the heart was hypertrophied and dilated, the organ being in other respects not remarkable.

The extension of the aneurismal sac having been mostly toward the anterior parietes, the organs within the chest had escaped. The œsophagus showed no signs of compression. In the lower part of the trachea was a slight prominence, but the lining membrane had undergone no change.

The head was not examined.

The right pleural cavity contained, by estimate, four pints of serum, and nearly one pint of the same was found among the bands of false membrane extending between the pleural surfaces on the left side.

The right lung was considerably compressed by the surrounding fluid.

The other organs were normal.

JUNE 14th.—*Hæmorrhage from the Umbilicus; Hæmaturia; Ranula upon the left Side; Recovery.* Dr. CANOT reported the case.

The child was born on the first of June, at 5½, A.M., after a short labor. The hair was of a dark-brown color, and about two inches long. The skin was very yellow. There was slight inflammation of one eye. A ranula also existed upon the left side, which extended to the edge of the lip. The mother was very well during pregnancy. The urine, which was at first free and of a healthy color, was noticed by the nurse during the night to become dark, and, on the following day, quite red. On the third day, it was bloody, and Dr. C. suggested to the nurse the probability of hæmorrhage from the umbilicus, and that she be prepared for such an accident. On the 4th, as was anticipated, bleeding commenced from the umbilicus, for which agaric and a compress were applied. The child suffered from constant pain, moaning continually, particularly when passing water. While dressing the navel, about two ounces of bloody urine passed the urethra, containing a granular matter resembling grumous blood. The ranula had disappeared. On the 5th, the bleeding had been so profuse from the umbilicus as to saturate the swathing cloths in front. Solid nitrate of silver was now applied to the edge of the partially-separated cord, the part was dressed with fresh agaric, together with cotton and a compress, and a teaspoonful of the following solution ordered to be taken every hour. ℞. Cupri sulphatis, gr. i.; acidi sulphurici diluti, gr. xij.; aquæ, ℥viij. M. At the first dose, about three teaspoonfuls were taken, and afterward about the quantity prescribed.

At the end of four hours, the color of the urine had changed, and no further bleeding took place from the navel. On the 6th, the urine was slightly red, but improving. The color of the skin was more healthy, and the general condition was decidedly better. On the 7th, the funis came away; there was no oozing of blood. The part was dressed with agaric. In consequence of constipation, the drops were ordered to be suspended, unless the hæmorrhage should recur. On the 8th, the blood had increased in the urine, and the medicine was again ordered, and again suspended, as there had been no dejection for two days. An enema was ordered, which was followed by two *dejections*. On the 10th, the child was well.

Dr. Cabot thought it an interesting question how far the result in this case was due to the treatment by sulphate of copper. He supposed recovery from this affection extremely rare.

Dr. Minor remarked that his investigations had shown that in eight or ten per cent. of these cases recovery occurs.

Dr. Homans mentioned eight or nine cases of this nature that had occurred in his own practice, five of which terminated favorably, the children at the present time being in fine health.

With regard to the treatment, Dr. Coale said that he had tried the sulphate of iron in one case with success.

June 28th.—*Execution of Magee. Post-mortem Appearances.* Reported by Dr. Henry G. Clark.

The prisoner, Magee, was a healthy and very muscular man, but of small stature, and weighing about 130 pounds. Age, 28 years. He was executed in the rotunda of the Jail, at 10 o'clock, June 25th. He was dropped a distance of from 7 to 8 feet. There was not the least perceptible struggle or convulsion, but the urine was passed immediately. At the end of seven minutes, all the sounds of the heart were distinctly audible and the number of beats 100 in the minute. At nine minutes, the number was 98. At the end of twelve minutes, the number was 60 and the pulsations fainter. At fourteen minutes, the sounds had ceased.

The body was lowered at 25 minutes past 10, at which time a careful examination of the chest revealed no perceptible sound or impulse of the heart. A small space under the left ear seemed to have escaped active compression, so that some circulation might have been continued through the carotid and jugular of that side.

The face was purple, and the pupils dilated, but there was no protrusion either of the eyes or tongue. The cord had taken just above the thyroid cartilage, and had left a deep oblique wale or indenture, along its whole course, excepting at the part before mentioned, the knot, which was over the mastoid, having lifted it off from this point.

At 10.40 the cord, and the straps with which he had been pinioned, were removed. After this, the body, the face especially, became gradually paler.

At a few minutes past 11, Dr. Ellis commenced the autopsy, at the House of Reception. The body was pale, and the skin mottled. A small ecchymosis was noticed just above the line of the cord on the right side. The right sterno-cleido muscle was ruptured through one half of its thickness. No lesion was discovered in any of the other soft parts of the neck. The os-hyoides was somewhat broken, but the spine was entirely uninjured. Dr. Shaw examined the clothing, to determine the presence of semen, but none was found.

At 11.30, a slight but regular pulsatory movement was observed in the right subclavian vein. Upon applying the ear to the chest, this was ascertained to proceed from the heart itself, which gave a distinct and regular *single* beat, with a slight impulse, 80 times in a minute. The chest was then opened, and the heart exposed, without in any way arresting the pulsatory movements. The right auricle was in full and regular motion, contracting and dilating with beautiful distinctness and energy. At 12 o'clock, the spinal cord having been previously divided, the number of contractions was 40 per minute,

having continued, with only a short intermission, regularly, up to this time. Dr. Ellis furnishes the notes of his own and Mr. Tower's minutes after this hour.

"The peculiar movements of the anterior wall of the right auricle gradually but occasionally recurred, either spontaneously, or excited by a passing current of air, until 1¾ o'clock. They could at any moment be excited by the point of the scalpel. Dr. Ellis being obliged to leave at this time, the remainder of the record concerning the heart was furnished by Mr. Tower, one of the medical house pupils of the hospital. It is as follows.

"At 1.45, the movements still continued without stimulus. Five were noticed in a minute, with corresponding intervals. At 2.45, all automatic movements ceased, but the part still responded to the stimulus of the knife. At 3.10, deep irritation of the same kind was followed by slight movements. The irritability was most marked at the lower part, where the venæ cavæ enter the auricle. At 3.18, all movements ceased. On opening the heart, it was found to be perfectly normal. The left ventricle was contracted; the right, not. No coagula were found."

Brain healthy.

Both lungs collapsed completely, and were in every respect normal.

The liver and spleen were darker colored than usual, owing to the presence of an unusual amount of blood.

The stomach contained a whitish pulp, like softened bread. The mucous membrane had a pinkish tinge, particularly in the neighborhood of the pylorus. In the large extremity, for some distance below the cardiac orifice, were numerous whitish glandulæ, about a line in diameter.

The upper part of the small intestine contained much green, bilious fluid. The mucous membrane was of a pinkish color. Peyer's patches were very distinct. No lacteals were seen.

The other organs were examined and found healthy.

Dr. Jackson asked if any motion of the intestines was observed—to which Dr. Ellis replied in the negative. Dr. J. alluded to the case of a tumor removed from the shoulder, some fibres of muscle attached to which contracted under the stimulus of the knife, some time after its removal. He also alluded to the muscular contractions which were manifest after death in many cases of cholera, during the epidemic of 1833.

The absence of cerebral congestion, Dr. Gay thought probably due to the adjustment of the rope, which allowed circulation in the left carotid. He thought death might have been owing to the sudden shock.

Dr. Clark alluded to the three modes in which death takes place by hanging, viz., apoplexy, asphyxia, and fracture of the spine, and attributed death in the present instance to asphyxia.

Dr. Ainsworth remarked, that all the appearances usually observed in cases of hanging were here wanting, and thought that the first effect of the sudden fall was a powerful concussion of the brain, which paralyzed the body—as in cases where a blow or fall is received upon the extremity of the sacrum—and that death occurred afterwar strangulation.

*Dr. H. J.* Bigelow considered the motions of the heart t *due to local* irritability.

Dr. Coale, in this connection, alluded to the unfortunate incident in the life of the celebrated Vesalius, in consequence of which he was banished from his country and died in exile. Not allowing a sufficient time to elapse after the death of his patient, before proceeding to the examination, the muscular irritability remaining in the body caused a pulsatory movement in the heart, which led to his arrest and punishment for murder and impiety.

Dr. Clark expressed the opinion that, as there was no lesion of any important organ, resuscitation might possibly have been accomplished by artificial respiration, &c., if efforts to that end had been made immediately upon the lowering of the body from the scaffold—that is, within half an hour after he fell. Strong shocks of electricity or galvanism would, in cases of accidental apparent death, destroy the little remaining vitality; and if these agents are used at all, they should be administered with great care.

June 28th.—*Trephining the Lower Jaw for Neuralgia.* Dr. J. Mason Warren related the case. The patient was a lady about 40 years of age. Eight years since, she had a neuralgic attack commencing in the lower jaw, in the neighborhood of the right bicuspid teeth. One or two teeth were extracted, but the pain still remained in the jaw, which seemed tender and swollen at that point. The neuralgic attack gradually increased, and the pain spread, affecting a large part of the left side of the face, being at times of the most excruciating character. During this time, every kind of treatment, that the best directed skill and judgment could dictate, was employed without avail. Dr. W. saw her about four years since in consultation, and suggested an operation, but she declined it at that time.

For the last six months previous to the operation, her sufferings were so great as to reduce her strength, and confine her to her room, where she moved only from her bed to her sofa, and for the most part was kept under the influence of morphia. Any movement, even of the air near her, was sufficient to excite an attack. Under these circumstances, every other means having failed, and her strength apparently giving way, she decided to undergo the operation. Dr. Perry, her physician, Dr. Blake and Dr. Oliver assisted. Being well etherized, the jaw was exposed in the vicinity of the masseter muscle, which being raised, a trephine was applied, and a circle of bone removed about half an inch in diameter. This exposed the inferior maxillary canal. The nerve was now raised on a probe, and as large a portion as the aperture would admit of, excised. A slight dissection was now made, and the inferior maxillary nerve, as it issued from its canal, again divided. The uneven and swollen alveolar processes were next removed by means of the bone forceps. It should have been before stated, that all the teeth in both jaws had in the course of her disease been extracted, but without any relief to her sufferings.

Three months have elapsed since the operation, and there has been no recurrence of the neuralgic pain in her face. She has given up her morphia, resumed her ordinary manner of living, and has taken one or two journeys into the country. One symptom from the operation, it may be interesting to state, is the occurrence of neuralgic pains in [illegible] different muscles of the body, on being brought into action [illegible]use. These, however, are of a supportable character.

The operation in this case may be considered as thus far entirely successful, and even if the pain should recur, the number of months of freedom from suffering, after so many years of torment, will allow the system time to rally and better support its return.

JULY 12th.—*Case of Monstrosity; Closure of both Ears; Imperforate Anus; Double Fissure of the Palate.* The following account of the case, received from Dr. WM. OTIS JOHNSON, of Cambridge, was read by Dr. JEFFRIES WYMAN, who also showed casts of the ears.

*Brattle Street, July 11th*, 1858.

"DEAR DOCTOR,—I send, at your request, memoranda of the case of 'Monster' we saw together.

On the 16th of June last, I was called early in the afternoon to Mrs. F., an intelligent woman, wife of a respectable American mechanic. In half an hour she was easily delivered of her third child. The first is living, and is an unusually handsome girl of about 5 years; the second died before the family came to Cambridge. Mrs. F. had previously told me that she had continued to nurse her second child *three months* after her last conception, which, of course, there is reason to doubt. She considered her 'time' as at hand.

The 'monster' gave no signs of life for more than a minute after birth, and was what is professionally called *blue*. The cord was about the neck. In about fifteen minutes after birth, having meantime made but a few faint cries, he gave out some half a dozen of the most unearthly shrieks, for an infant, I ever heard. These were repeated some eighteen hours afterward.

I found the ears closed and undeveloped, as your casts will show; a double fissure of the palate, and an imperforate anus. The *ensemble* of the features was idiotic; the remaining development was perfect, and seemed to be that of a six months' or six and a half months' fœtus.

Thirty-six hours after birth, a film, of apparently mucous membrane, protruded from the anal fissure, and, after reaching the size of about half an inch in diameter, burst, and meconium escaped.

The child continued to show an increasing vitality till about the thirtieth hour after birth, from which time it began to sink, and died easily, forty-five hours after birth. Very truly yours,

WM. OTIS JOHNSON."

JULY 12th.—*Cyclopism in a Pig.* Dr. JEFFRIES WYMAN gave an account of the case—the specimen, which had been preserved in spirit, having been placed at his disposal for dissection by Dr. Geo. H. Gay. "It corresponds very nearly with one described by Vrolik in his Memoir on Cyclopia,* and represented in Plate II., Figure 5. A cylindrical snout, commencing above the eye, projects upward and backward, and ends in a disc perforated by a transverse opening. This last is the entrance to an imperfectly-divided nasal canal. The upper lip terminates in an elongated bulb, vertically compressed, and, as is usual with such monsters, the tongue protrudes from the mouth.

"*Brain.*—A large sac filled with fluid occupied the upper and middle portion of the cranial cavity, and, when evacuated, left the cerebellum, tubercula quadrigemina and the optic thalami completely exposed. The

* Over den Aard en Oorsprong der Cyclopie, door W. Vrolik. Amsterdam: 1834. 4to. 6 plates.

relations of this sac to the brain itself could not be satisfactorily ascertained, owing to the softness of the parts. These organs were all well represented, but rather less perfectly developed than usual. The cerebral lobes were represented by a single hemispherical mass, without a median fissure, or convolutions excepting two imperfect ones on the under side. This cerebral mass was hollow, and seemed to open on its posterior face into the sac above described. The absence of a median fissure is accounted for by the persistence of the anterior primary cerebral vesicle.

"The optic nerve arose symmetrically from the anterior portion of the base of the cerebral mass, between the two convolutions noticed above. There were no "optic tracts," but its fibres, after separating a little from each other, entered at once into the cerebral substance. The nerve escaped from the cranial cavity through a single optic foramen, and entered the globe of the eye on the median line and a little below the axis. The globe was symmetrical, and the transverse exceeded, a little, the other diameters. Two pupils existed, each surrounded by an iris and two lenses, but the sclerotic, choroid and retina were single; there was no septum in the vitreous humor.

"The olfactory nerves were deficient, but the nerves of the orbit were all traced to their proper cerebral connections. The nasal branch of the orbitar portion of the fifth entered the cranial cavity through an opening formed on the median line in the orbitar plates of the frontals, and was traced through the ethmoid fossa into the snout, on the extremity of which it was lost.

"The dissection of the muscles of the eye was incomplete, in consequence of the state of the parts, but the following were made out—a single levator of the upper lid, two superior recti, two superior oblique, a right and left external rectus, and two inferior oblique. These last, in the absence of a septum between the orbits, arose from each other, forming a transverse band of muscular fibres. The internal recti were deficient.

"This nearly single symmetrical eye was surmounted by a lid consisting of the outer portions of two lids, united by a narrow band across the median line. No puncta lachrymalia were found. The lower lid, formed like the upper, was partially concealed by the projecting globe.

"*Cranium.*—The whole front of the cranium was separated from the bones of the face and thrown upward, so that the roof of the orbit was nearly vertical, and extended transversely across the face. In the absence of the ethmoid, the orbitar plates of the frontals met on the median line. The frontals supported the bones of the snout, which were three in number—one median, just before the frontals, consisting of the united nasals, and two lateral bones, probably the intermaxillaries, much larger and bent upon themselves, so as to form a tube, in which was the cavity of the nostrils; this cavity communicated with that of the cranium through the ethmoid fossa.

"The anterior sphenoid consisted of a single, transversely elongated plate perforated by a single optic foramen. The sphenoidal fissures were represented by a single quadrangular opening, which separated the anterior from the posterior sphenoid, and which transmitted the nerves of the orbit. There was no vomer.

"The inferior border of the orbit was formed by the coalesced lachrymals, which united on the median line, and by the malar bones, which

were brought nearer together, and more transverse than usual. The superior maxillaries were short, recurved and fused.

"The superior maxillaries were terminated anteriorly by a notch, lodging a tooth, but there was nothing in this place to represent the intermaxillaries, and consequently there was no incisive foramen. Wedekind and others, who have described the bones of the face in cases of cyclopism, uniformly speak of the absence of the intermaxillaries. It seems probable that the intermaxillaries are not deficient, but are displaced, and are represented by the pair of bones found in the snout. This view is supported by the fact that these last-mentioned bones form a part of the walls of the nasal canal, are situated in front of the united nasals, and articulate beneath these with the frontals; they are also impressed on their inner walls by a branch of the nasal portion of the fifth pair of nerves, which is lost on the extremity of the snout. It might be added, still further, that the intermaxillaries are developed independently from a median bud, while the maxillaries project from the first visceral or branchial arch, and subsequently unite with the intermaxillaries. The cyclopian eye projecting forward on the median line would have a tendency to throw the intermaxillary bud upward, and thus prevent its union with the maxillaries."

Dr. Wyman made some general remarks on cyclopism, and attempted to show that it belongs to a class of malformations in which organs situated on either side of the median line, and unsymmetrical in themselves, are separated by a median symmetrical organ, which, however, may make greater or less approximation to a double organ.

"The middle incisors were wanting. The single tooth occupying the notch in front of the maxillaries, and on the median line, was a symmetrical incisor, presenting an analogous malformation to that of the eye, it being composed of the united outer halves of the lateral incisors. This symmetrical incisor is figured by Vrolik, but he has not pointed out its morphology. The other teeth were normal. The lower jaw projected beyond the upper, and its anterior extremity was bent upward."

The cranium, which had been prepared by Dr. Wyman, was exhibited by him, with drawings of the external appearances of the head and of the brain, and will be preserved in the Cabinet of the Society. For comparison, Dr. W. has also prepared the cranium of a well-formed new-born pig.

July 26th.—*Fibrous Tumor of the Stomach.* Dr. C. E. Ware reported the case.

The patient was an Irishwoman, 56 years of age, who came under his care at the Hospital, with symptoms of cardiac and renal disease. She had œdema of the face and lower extremities, the physical signs of effusion into one pleural cavity, œdema of the opposite lung, and extensive dulness over the cardiac region, extending downward and inward. Both sounds of the heart were feeble at the time of entrance at the Hospital, and after five days the first sound was entirely wanting, and there was no murmur and no irregularity in the pulse. The urine was albuminous, and contained casts of tubuli. Excepting a little nausea, which she attributed to the motion of the carriage, on her way to the Hospital, she had no symptoms which could be referred to the stomach, and none had apr[illegible] since her entrance. The

abdomen was somewhat full, partly from effusion, and partly from tympanites. A tumor could be felt on the *left side*, on a line with the crest of the ilium, between that and the umbilicus, nodulated and irregular on its surface, and yielding under pressure. It could be traced down deep into the iliac region

The woman, some years since, had had rheumatism. For eight months her health had been failing. Pain across the region of the kidneys was her principal source of discomfort. For six weeks she had been suffering from dyspnœa, and swelling and pain in the lower extremities. She sank rapidly under the pulmonary effusion, and died.

*Sectio Cadaveris*, by Dr. Ellis. The head was not examined.

Universal old adhesions of the pleural surfaces on the right side. False membrane quite œdematous. Old adhesions also near the apex of the left lung. The pleural cavity below, contained thirty-six ounces of serum.

Upper lobe of the right lung crepitant but œdematous. In the lower lobe was an apoplectic effusion about an inch and a half in diameter. Below this, the substance for some distance was of a dull-red color and solidified, but did not present the usual appearance of pneumonia. On microscopic examination, the latter portion was found to contain much blood, and many minute globules like those of fat; also a few of the so-called inflammation-corpuscles.

The lower lobe of the left lung, with the exception of the anterior edge, was so compressed that it contained no air. The remainder of the lung was healthy.

The pericardium contained about the usual amount of serum.

General hypertrophy of the heart, most marked in the walls of the left ventricle. Weight 15½ ounces.

Most of the coagula seen were soft, black, and recent, but the appendix of the right auricle was filled with what appeared to be an older formation. Firmly attached to the anterior wall of the left ventricle was a small, yellow or reddish fibrinous mass, evidently quite old. Examined microscopically, it presented the granular appearance of coagula of some age.

Slight atheromatous disease of the aorta and mitral valve.

The liver was mostly of a dark-yellow color, but in many parts remarkably vascular. The blood, however, was not so distributed as to give to the organ the uniform mottled appearance of the nutmeg-liver, but occupied certain irregular portions only, where it had a somewhat arborescent arrangement. Examined microscopically, the cells appeared to contain many minute, yellow globules, to which the color of the organ was evidently owing. Beneath the upper surface was a small, white, fibroid nodule, between two and three lines in diameter.

The gall-bladder and its contents were not remarkable.

Spleen quite firm and of the usual size.

Each kidney contained a number of serous cysts, the largest about half an inch in diameter. The right was considerably smaller than the left. Weight of the former, 4 oz.; of the latter, 5¼ oz. Beneath the external surface of the left, extending into the substance from the convex edge, was a dense, yellowish substance, like old lymph, perhaps an inch long, and half an inch broad, and rapidly diminishing in size before it reached the tubular portion, which was to some extent involved. Small, detached portions of the same were seen in the

neighborhood of the one described, but the whole occupied but a small part of the organ. The limits of the cortical and medullary portions, elsewhere, were not so well defined as usual.

The right kidney was granular internally, and the substance had an unhealthy appearance, difficult to describe.

In the parietes of the stomach, occupying the large curvature and anterior wall, was an exceedingly firm, irregularly-oval, nodulated tumor. A small portion of the external surface was of a yellowish-white color, and had an almost cartilaginous appearance. The mucous membrane of the stomach extended over the part, which projected internally. At several points were cavities, caused by a loss of substance. The largest of these, about half an inch in diameter, contained a brownish slough and extended quite deeply into the tumor. On incision, the growth was found to be very firm, of a whitish color, and presented an indistinct fibrous appearance. Examined microscopically, it proved to be purely fibroid in character.

The mucous membrane of the stomach was everywhere of a bright red color, particularly over the tumor.

The large intestine contained much fæcal matter. The mucous membrane everywhere, but particularly in the cœcum, was deeply injected and even ecchymosed. The blood, however, mostly disappeared on pressure.

The other organs were examined and found healthy.

JULY 26th.—*Tumors of the Omentum.* Case reported by Dr. GAY.

Mrs. R., æt. 46, had generally enjoyed good health till three years ago, when she felt at times a lump in the left ovarian region, more or less movable, and attended with a dull aching sensation rather than a sharp pain. It seemed to be limited to that spot, and the uneasiness was such that she could not lie on that side. She was about six months pregnant when she first discovered it. As pregnancy advanced, the lump was pressed between the left ilium and lower rib, and became less and less movable, upward and downward, only and over a small extent of surface. This motion, such as it was, was very decided. The "lump" could not be moved toward the umbilicus. At the time of confinement, she was much larger than ever before. Almost immediately after the confinement, the "lump" or tumor moved toward the median line, and for twenty-four hours was very painful. The pain then gradually ceased. The abdomen never fell down to the size it was previous to pregnancy. When she began to go about the house, she was much larger in lower abdomen than natural, and equally so on both sides. She could no longer feel the "lump," and thought no more about it. She did not know how to explain her enlarged size. No perceptible or great increase, enough to attract attention, was observed afterward till last January, when, without any known reason, there was a more oppressive feeling of weight in the lower part of the abdomen, attended with some tenderness on pressure, a decided loss of strength and energy, and with a much greater general fulness of the abdomen. There was nothing like pain present. These symptoms increased rapidly, and in March she sent for her family physician, who at once found the indications of fluid in the abdominal cavity very evident. She was then submitted to a course of m[illegible] *treatment,* without, however, producing any material or per[illegible] *diminution* of her size.

There was no symptom bearing upon any organic disease of the heart, liver, or the kidneys. Everything seemed to be directed to this "lump," and the diagnosis rested between ascites and ovarian disease.

By the patient's report, the greatest amount of suffering was during the ten days previous to the first tapping on June 6th, from dyspnœa, some tenderness on the right side below the liver, accumulation of wind, and a sensation, when she attempted to raise herself up, as if something was giving way at the epigastric region.

During the course of the abdominal enlargement, the bowels and catamenia had been generally regular. Last winter, the catamenia, as to the time of appearance and quantity, were variable, and attended with much pain in the back, nervousness and restlessness.

Suddenly, in March last, without any known reason for the aggravation of the symptoms, she was confined to her bed, and continued more or less of the time in the horizontal position, till the first tapping on June 6th.

Nearly every day, from the last week of March till the first tapping, there was nausea, and vomiting of a greenish fluid in small quantity, and usually in the after part of the day. There had been no nausea nor vomiting since the first tapping.

In March, the urine was scanty and of the color of coffee. There was never any pain nor difficulty in passing it. At no time could any albumen be detected in it. The color began to change after the tapping of June 6th, and since the second tapping on June 23d, it had been natural. At no time had there been much pain or tenderness on pressure. When pain was present, it was mostly produced by wind.

She had had much uneasiness from the accumulation of wind, which at times had brought on great dyspnœa, with headache.

Generally, she slept pretty well, and was always more comfortable in the horizontal position. At times, she tried to get up and walk, and found that there was less uneasiness and distress while walking than when sitting. Never at any time was there a permanent swelling of any part of the lower extremities.

Considerable general emaciation of the body had followed, since March.

At the first examination, on June 6th, the day of the first tapping, in consultation with Drs. Dupee and Channing, the abdomen was found very regularly enlarged and prominent; tense, fluctuating throughout, except in the region of the arch of the colon; elastic, and without any feeling of hardness as from a solid mass at any point. The uterine sound had been previously introduced by Dr. C., and the uterine cavity was found to be normal. She was tapped, lying upon her right side at the edge of thebed. Upwards of three gallons of a dark, prune-juice colored fluid, were drawn off. The first half of the fluid was thin and not viscid, the last half much thicker and firmer. On placing her upon her back, some small tumors of different sizes were distinctly felt—some above, some below the umbilicus, hard and freely movable. Nothing like the walls of a sac could be detected. The presence of these tumors, supposing that they might be connected with an ovarian sac, excluded, of course, any attempt for a radical cure by the injection of iodine or the leaving in of the canula. For the next five or [illegible] was no perceptible re-accumulation of fluid; immedi-

ately afterward, there were signs of fluid, which increased so rapidly that she was tapped a second time on the 23d of June. This time the patient sat on the edge of the bed, and as the fluid escaped, the tumors could be seen and felt, falling downward below the umbilicus. The amount of fluid drawn off, was a little less than three gallons, claret-colored, as if from admixture of blood, thin, and without coagula or any viscidity. When examined, the fluid contained a large amount of blood and albumen. It was supposed that the trocar might have touched one of the tumors and given rise to the hæmorrhage. The tumors were then examined carefully. At least five were detected—hard, perfectly movable, some above and some below the umbilicus, of different sizes, the largest as large as one's fist, and situated midway between the umbilicus and the os pubis, and a little to the left of the median line All these tumors slipped about easily and freely, and appeared to have a common connecting medium. From the antecedents in the case, there was a strong presumption that these tumors might be growths projecting inward or outward in an ovarian cyst, and if connected with a cyst, the extensive mobility and falling downward of the tumors below the umbilicus, indicated an absence of any troublesome adhesions. Still, no cyst could be felt by the fingers externally, nor by a bougie passed through the canula. This circumstance, in connection with the character of the fluid, which at neither time presented the usual peculiarities of an ovarian secretion, gave rise to doubts as to the precise nature and locality of the affection.

No apparent constitutional disturbance followed the operation. In two or three days, she was up, walking about her chamber, and being a person of uncommon firmness and resolution, she said the tumors must be cut out, after fully realizing the seriousness and dangers of the operation. She and her husband said that she would soon sink from the distress consequent upon the re-accumulation of fluid; that they could clearly see that the secretion of fluid would not stop as long as the tumors remained, and that they had fully made up their minds to rest on the hope, slight as it might be, of a successful issue to the operation.

As the abdomen was becoming more distended, the fluctuating surface was daily increasing, and the accumulation of wind causing uneasiness and pain, it was finally decided, with the concurrence of Drs. Channing and Dupee, to attempt an operation. The day before the operation, there was a free evacuation of fæcal matter and wind, after the administration of inspissated ox gall (gr. xii.). As there was doubt and obscurity in the diagnosis, it was by all means thought the most advisable to make an exploration first, being fully prepared to extend the operation and remove the tumors and sac, if a sac was present and under favorable circumstances. On the morning of July 6th, the patient being in an excellent condition of body and mind (in the presence of Drs. Channing, Dupee and Read), a short incision was made in the skin, commencing just below the umbilicus. The parts were then dissected with care till the peritoneum was brought into view. This being divided, two gallons or more of a thin, yellow, serum-looking fluid came away. The abdominal swelling entirely subsided, without any ovarian cyst being discovered. The incision in the peritoneum was then made about two inches long, in order to see *where* and to what the tumors were attached. The peritoneum was

found of a bright-scarlet redness, and dotted as far as could be seen with red points of the size of the head of a pin. On introducing two fingers into the abdominal cavity in search after the tumors, a small, smooth, roundish mass was brought out of the wound, and found to have a very small, twine-like pedicle. This was removed, and one of the larger tumors was brought up to the opening, and found, with those remaining, to be firmly connected with the *omentum*. It was not thought prudent to remove any of them, and the wound was brought together and secured by a stitch and sticking plaster. They were smooth, of a scirrhous hardness, and firmly fixed in the omentum. The mass that was removed, was evidently a decolorized coagulum. No constitutional disturbance followed this exploratory operation, and the pulse never went above ninety. The wound healed by the first intention, without any soreness or pain. At no time was there any indication of peritonitis. In a few days she took iodide of potassium, and had tincture of iodine applied externally. She also took calomel, digitalis and squills in the hope of increasing the renal secretion. The urine very sensibly increased in quantity, amounting to a quart in twenty-four hours, with a decided diminution in the deposit, and a return to its natural color. For several days there was a manifest improvement in the general health. The only suffering was from an accumulation of wind, which was partially relieved by assafœtida and spearmint tea injections. On the 19th of July she was again tapped, and five pints of a straw-colored fluid was drawn off. The tumors seemed, if anything, somewhat smaller. She was up and dressed, the morning after the last tapping, and has gone on comparatively well to this date.

In connection with Dr. Gay's case, Dr. Jackson alluded to several cases that he had seen of ascites, in which encephaloid tumors were found in the omentum, and elsewhere upon the peritoneal surface; the tumors being very distinct and movable during life, and the organs entirely free from cancerous disease.

This form of disease, Dr. J. thought, had not sufficiently attracted the attention of the profession; and the possibility of its occurrence in cases of ascites should certainly be borne in mind where there is no evidence of any other organic affection.

Aug. 9th.—*Partial separation of the Placenta; Delivery at the eighth month.* Dr. Coale showed the specimen, and reported the case.

A. O., aged 23, of stout, short figure, pregnant with her second child; had always enjoyed good health. Her first confinement was favorable; her child is now living, hearty and well grown, though she had not so much milk, nor did it continue so long as might have been expected in one of her build and development. Her menstruation ceased Nov. 30th, 1857. I was called to her at 11½ o'clock, on the night of Aug. 7th, 1858, 250 days after this. She was lying-in, the pains of labor recurring every ten minutes, and lasting more than half a minute. Her dress and the bed clothes were drenched in blood. The pains had commenced an hour and a half before, and the flooding simultaneously with them. The os uteri was dilated to about the size of a half dollar—was very thick and unyielding. Clots of blood were lying around it, and protruding from it. The finger was passed in very carefully, and swept around it to feel for the placenta. It could not

be felt; and as between the pains the distance reached was nearly the length of the finger, I decided that the case was not one of placenta prævia. The presentation was natural—the face to the right sacro-iliac symphysis. The patient was not expecting confinement for a month. Four weeks ago she had lifted a heavy bureau, when she felt something give way inside, though nothing else occurred. The motion of the child had been felt up to a late hour in the evening, and nothing seemed really amiss until the pains and flooding commenced. My presence backened the pains sensibly, and I retired for an hour. On second examination, I found the labor progressing, but very slowly. The hæmorrhage kept pace with it. At every pain, clots of large size and fresh liquid blood were expelled. The os was still thick and seemed to yield but very little. The pulse, however, was strong, and from the full build and fresh complexion of the patient, indicating good hæmatosic qualities, I argued she could stand a considerable loss of blood, and that there was no reason yet for me to interfere. Finding that my presence still sensibly lessened the pains, I absented myself as much as possible. This condition continued, my patient not failing, though the hæmorrhage continued, until, at 2¼, I found the dilatation sufficient to authorize me to rupture the membranes. After an interval, the pains were renewed—the head came down well. By a little manipulation, the os was sufficiently enlarged, the fœtal head came through, bore on the perinæum for a minute, and at the next pain the child was expelled. It was dead, and there was no pulsation in any part of the cord. The bones of the skull easily rode over each other, and there was enough flaccidity to induce the belief that death had occurred some hours before. It was a small, though plump, well-filled-out child, nothing indicating that it had not been well nourished, up to the last moment of its fœtal existence. The placenta soon followed, and every thing pertaining to the remainder of the labor was natural and favorable.

The placenta was here exhibited. It presents marks of engorgement for half its surface, and evidently partial detachment before delivery. Whether lifting the heavy weight a month before confinement had anything to do with its condition, seems to me doubtful. The well-nourished state of the fœtus would argue against this. Yet such engorgement or apoplexy is rare without a special exciting cause, except in certain cases of depraved habit; and in these, or any cases of apoplexy of the placenta, though it induce premature labor, it is not necessarily or generally attended with hæmorrhage.

Upon the surface of the placenta there was, to a considerable extent, a mass of dark coagulated blood, which, from its consistence and the degree of its adhesion to the mass beneath, may have been effused before labor commenced. Upon cutting the placenta through in every direction, nothing unusual was observed, excepting a white, opaque, fibrinous disorganization, less than an inch in extent, and which may have been the result of an old apoplectic effusion.

August 9th.—*Short Umbilical Cord.* Dr. Minot showed the specimen. Delivery occurred at the eighth month, and the fœtus was malformed. The funis measured *eight inches* in length. There was no deficiency in the parietes of the abdomen.

*Dr. Ayer* mentioned a recent case of his, where the umbilical cord

was less than a foot—probably nine or ten inches—in length. The presentation was natural, and when the fœtal head pressed on the perinæum, as the pain ceased, retraction or resilience was perceptible. This occurred repeatedly. It was evident to him that the progress of labor was retarded thereby. He had noticed similar phenomena in other cases, where the cord was preternaturally short, or was wound around the neck or body of the child. In a few cases, so marked was the resilience of the head at the subsidence of the pains, that he had diagnosticated, to himself, the difficulty. A short cord doubtless retards labor, and occasionally causes other embarrassments. Some modern obstetrical authorities ignore the subject—others disbelieve it. Denman, whose authority in all practical details cannot be questioned, says:—"It [the cord] may be naturally very short, or it may be rendered so accidentally, by its circumvolution around the neck, body, or limbs of the child. Whichsoever of these is the case, the inconvenience produced at the time of labor is the same, that is, the labor may be retarded; or perhaps the placenta may be loosened prematurely; or the child may, in a tedious labor, be injured, or in danger of being destroyed by the tightness of the ligature drawn about its neck; or by the mere stretching of it, as this must necessarily lessen the diameter of the vessels, if not perfectly close their cavity. But the two latter consequences very seldom follow."

Dr. Minot alluded to a case that occurred two years ago, in which it was necessary to divide the cord, which was around the neck of the child, to allow delivery to take place. It measured about ten inches in length.

August 9th.—*Cysts from the Cavity of the Arachnoid.* The specimen shown by Dr. Ellis, from a patient of Dr. C. E. Ware.

The patient was a man 65 years of age, of somewhat intemperate habits. On the first of July, 1857, he was struck by the boom of his vessel on the back of the neck and head. He was stunned, and severely injured at the time, and since has never been free from pain in the back of the head, extending through to the forehead. He entered the Hospital July 14th, 1858. His health had been rapidly failing for the previous four or five weeks. He complained only of pain through the frontal region. His memory was much impaired, so as not to be trusted from moment to moment. His bodily functions were all well performed. He continued to fail in mind and body, passed into a state of lethargy and coma, and died without the occurrence of any other symptoms. He never had any paralysis, nor anything which resembled an apoplectic attack.

*Sectio Cadaveris*, by Dr. C. Ellis.

Head.—The inner surface of the calvaria, near the vertex, was reddened, and quite porous, or, rather, traversed by minute channels, which gave it the appearance of being affected with osteoporosis. Over the superior and lateral surfaces of each cerebral hemisphere, between the dura mater and the arachnoid, or, considering the latter a sac, in its cavity, were cysts, composed of a firm yellowish membrane, less than half a line in thickness. That upon the right side contained within its cavity about two ounces of thin blood, and soft, blackish coagula. A small quantity of yellowish fibrin also adhered to the inner surface. Within about an inch of the periphery, in all directions,

the two walls were united, and then, as a single layer, became thinner and thinner until they were lost, near the longitudinal sinus above, and toward the base elsewhere. Upon the left side, although a cavity existed, the walls appeared to have been in contact. There was decided flattening of both hemispheres beneath the sacs, which adhered very slightly, if at all, to the arachnoid, while their union with the under surface of the dura mater was such as to render some care necessary in their removal. The brain itself appeared healthy.

The posterior part of the lower lobe of the right lung was hepatized, though the tissue was not solidified to the degree generally seen.

The other organs were examined, and found sufficiently healthy.

Dr. Jackson remarked upon it as a curious pathological fact, that a membrane should form about blood effused into the cavity of the arachnoid; and that such changes should subsequently occur in it. He had examined, *post mortem*, three cases that he supposed to be of this nature. The first occurred many years ago; a thin, but very tough membrane was formed quite extensively, in part connected with the dura mater and partly separated from it. The case was not understood, as there was no effused blood, though there probably had been within two months. In the second case, about five ounces of blood were effused over the right hemisphere; and the membrame was so tough that, though great force was used, it was not torn. The patient was an elderly man, and the disease could not have dated back more than three weeks. In the case of the Hon. Daniel Webster, which was fully reported by Dr. Jeffries in the *American Journal of Medical Sciences* for 1853, there was a fibrinous effusion over the convexity of both hemispheres, the greatest thickness being about one fourth of an inch; no blood was found, and there had never been any satisfactory evidence, from symptoms, of any considerable effusion, and yet an effusion had probably taken place.

Dr. J. referred to numerous specimens that he had seen in European museums. In one, that was exhibited at a meeting of the Anatomical Society in Paris which he attended in 1851, the cyst was as large as the two fists, partly ossified, as it was in some of the other cases; and, when recent, filled with a pultaceous matter. Dr. J. further referred to an article upon this subject in the *Med.-Chir. Trans.*, by Mr. Prescott Hewett.

Aug. 9th.—*Tumor from the Penis of a Horse.* Specimen exhibited by Dr. Robert Ware. It consisted of a fatty tumor, first noticed about ten days ago. It was situated about six inches from the extremity of the penis when extended, and was attached to the prepuce. The horse was 18 years old.

August 23d.—*Gonorrhœa; Abscess of the Penis.* Dr. Coale mentioned the case.

He first saw the patient, a young man, in June. At that time there was nothing remarkable in the appearance of the case. On the 4th of July, the penis showed signs of erysipelas, followed subsequently by an abscess of the size of a hen's egg, which was laid open. It had dissected up the integuments, and laid bare the corpus spongiosum. He laid it open freely, and dressed it with tincture of myrrh and powdered bark. At the end of three weeks he had recovered. Another

abscess afterward formed at the root of the penis. This was opened, and discharged laudable pus, without any urinous odor. This soon healed. The general treatment was by copaiba. Dr. C. thought this complication extremely rare.

August 23d.—*Fibrous Tumor of the Uterus.* Dr. Ayer showed the specimen.

The patient was 40 years of age, the mother of five children; she had had uterine hæmorrhage, at intervals, for four years, and been under the care of various physicians. He had been called to her only a few times previously, and then to pass the catheter. The character of the tumor had not been determined, till, one day, after a long walk, the entire mass came away. Its form was heart-shaped, appearing like an enormous uterus, inverted. It was found to be pediculated, and attached to the uterine wall. Dr. H. G. Clark saw the patient, in consultation. A strong ligature was passed around the pedicle, and tightened daily. The tumor separated on the fourth day, its apex was marked by a smooth circle, worn by pressure on the os uteri. Weight of tumor, two and a half pounds. To the knife, its resistance was firm, and the substance throughout hard. No hæmorrhage followed the operation, and the patient has greatly improved under the use of citrate of iron and other tonics. There is, however, procidentia uteri, compelling her to lie abed a portion of the time, and wear a supporter when about.

August 23d.—*Osteo-Cancer of the Femur.* Dr. Townsend reported this and the two following cases.

The patient, C. S., was a male, aged 15. Three months since he felt pain and noticed a swelling in the left popliteal region, which continued until the space was completely filled. The leg was amputated; after the operation the periosteum retracted, leaving the bone denuded for an inch above the section.

August 23d.—*Myeloid Disease of the Ankle-Joint.* The patient, E. M., was a female, aged 34. Six months ago, she observed a tumor on the left external malleolus, which appeared to be an enlarged bursa. This tumor was two inches in diameter, and arose from the inside of the joint. After its removal, the astragalus was exposed. The disease was that termed, by Paget, myeloid disease.

August 23d.—*Encephaloid Disease of the Head of the Radius.* The patient, M. C., was a seamstress, aged 31. Five months ago, she observed a swelling on the back of the right wrist. At the time of the amputation, this was conical in shape, ulcerated on its surface, and about an inch in height. Her grandmother had cancer; her parents are healthy. Upon opening the tumor after amputation, it was found to be encephaloid in its nature, the head of the radius being destroyed.

Aug. 23d.—*Yellow Fever in Boston.* Dr. Ayer read the following report of two cases of this disease, the first case being partly from the notes of Dr. C. E. Briggs.

Case I.—Tuesday, July 20, 5.30 P.M., Dr. Briggs was called to Mrs. R., aged about 40 years, on board barque St. Mary, at Boston Wharf (South Boston), who was complaining of violent headache.

Dr. B. saw about ℥ iv. of blackish, slimy matter, which she had vomited, and understood that she had vomited more that had been thrown away. She had eaten, before breakfast, at her own house, some guava jelly. No appetite through the day; one dejection; skin hot, but moist; pulse frequent; no special pains. Right eye injected. Had menstruated the preceding week; some show in the morning. Patient walked with considerable strength to the carriage, and returned to her home, No. 500 Commercial Street. She vomited, on the way, more of the dark brown matter, and before the visit had taken sage tea. Ordered, ℞.—Calomelanos, Jalapæ, aa gr. vi.; Pulv. Ipecac. et Opii, gr. xii. M. Chart. No. ii. Pediluvium; mustard to epigastrium, if the vomiting be distressing.

Wednesday, July 21, 9.30 A.M.—No pains of back or limbs; no tenderness or spots on abdomen. Pulse 90. White coat on the tongue. No appearance of menses; watery evacuation from the stomach; both eyes injected; light disagreeable; the eyes not painful on pressure; no yellowness. The medicine ordered yesterday vomited immediately. Forbade plum cake, pine-apple and sage tea, and prescribed Ol. Ricini, ℥ i., in two potions, and a febrifuge every hour.

Thursday, 22d.—Pain in one arm; eyes less injected; no pain of limbs, or tenderness of abdomen, or spots. Nausea continues; oil operated several times—soft yellow dejection.

Friday, 23d.—Pulse 70. Had a comfortable fluid dejection. Complained of weakness. Had what she called a fainting fit the preceding night, and called Dr. Ayer, who prescribed. No spots of the abdomen or tenderness, and no yellowness.

Thursday evening, 10 o'clock.—Mrs. R. was visited by Dr. Ayer, and found seriously ill. Complained of cramps of both hands and arms. Skin cold and clammy, as in cholera; pain at epigastrium, with constant vomiting at intervals of fifteen minutes. Was informed that she had been brought home from a barque at quarantine, where she had been washing for several days. A physician had visited her, but the friends said they neither knew his name nor expected any further visits.

The fluid vomited was dark and grumous, inodorous, and of the consistence of coffee grounds. Bowels open; urine scanty. Pulse 76, and feeble; respiration hurried, with slight cough. Tongue moist, with dark brown fur. Dry friction with flannel and mustard was ordered, and sinapisms to epigastrium and feet. One grain of calomel, with half a grain of opium, was ordered to be taken every hour, and two drops of chloroform in a teaspoonful of the syrup of acacia, *pro re nata*.

Friday morning, 23d.—Cramps have ceased; she had slept a little; skin of moderate temperature. Pulse about 90, and had fallen off in strength. Icteric, about face, neck and chest. Vomiting continues, the ejecta being perfectly black. Difficulty of breathing; chest slightly dull on percussion; expectoration viscid and scanty. Evident symptoms of mild pneumonia. The medicine was ordered to be continued, and, in addition, a sinapism to the chest and an expectorant mixture of the syrups of senega and squills.

Saturday, 24th, 6½ A.M.—Was called before breakfast, and found the patient decidedly more ill. The yellowness extended to the abdomen. Pulse 90, tense and weak; pneumonic symptoms more urgent;

black vomit continues. The body comfortably warm, but extremities cold. Mental faculties clear. The treatment to be continued; and a blister, 4 by 6 inches, to be applied to the chest. Bowels soluble.

Mrs. R. died about 11 o'clock, A.M. Shortly before death, the attendants state that she coughed up half a pint of fresh blood. The blister was not applied. Mind clear to the last. The body perfectly icteric, or lemon-colored, after death. An autopsy could not be obtained.

Case II.—Martin M., æt. about 36 years, an Irish grocer, of intemperate habits, residing at No. 372 North Street, was visited early Sunday morning, July 25th He complained of lassitude and chills the preceding day, but had attended to his business. During the night he was seized with violent vomiting, which continued at the time of the visit, at intervals of ten minutes. The patient was in bed: pulse 100, and tense; skin hot and dry, especially about the head. Tongue moist, with a dirty brown coat. Urgent thirst and constant anorexia. The fluid vomited was of a pale green color, inodorous, and without sediment. Pressure over the epigastrium caused pain. He had had no dejection for twenty-four hours; urine had passed in the night. Conjunctiva of both eyes highly injected: the skin was slightly icteric about the eyes and face. Extremities hot and dry. The patient attributed his illness to a sudden cold, but denied exposure on board of any vessel. Sinapisms were ordered to the epigastrium and feet. ℞.—Hydrarg. chlorid. mit., gr. xv. Div. in chart. No. iii.: one every two hours, to be followed by enema if necessary. ℞.—Liquor. ammon. acet., Spts. æther. nitros., aa eq. pts.; one teaspoonful every four hours, and chloroform in Syr. acaciæ, p. r. n. Diet, tea and gruel, with ice and iced water in small quantities.

25th, P.M.—Patient more comfortable; cathartic had operated freely three times. Dejections not saved for inspection, but represented as dark-colored and copious. Vomiting continues, but not so frequently; the matter is darker, with grumous sediment. The liquid portion is yet of a pale green color. Pulse 95; skin cooler; thirst less. No urine, and the bladder empty. The icteric hue had extended to the chest. Little nourishment had been taken. ℞.—Pulv. opii, gr. ¼; calomel, gr. i.; M.; to be taken every two hours.

26th.—Patient reports himself more comfortable; had fifteen dejections during the night. Yellowness brighter and more diffused, extending to the abdomen. No urine; conjunctivæ less injected; coat of the tongue has become black; vomiting continues. The matter vomited is like coffee grounds—soluble in water—presenting the appearance of disorganized blood. Kreasote was substituted for chloroform. Pulse weaker. The medicine was ordered to be continued.

26th, P.M.—No dejection; pulse 92, weaker. Vomiting incessant; no urine. Patient's strength failing—unable to take nourishment. Mind clear. The following was now ordered: ℞.—Morphiæ sulphatis, gr. i.; Hydrargyri chloridi mitis, gr. vi. Chart. No. vi. One every two hours; also a blister, 5 by 6, to the epigastrium.

27th.—Patient sitting up; had had no sleep. Pulse 88; vomiting continues; countenance haggard and spirits depressed. Blister filled with dark, inky serum. Patient refuses medicine, and is promised the benefit of a consultation.

3 o'clock, P.M.—Dr. H. G. Clark saw the case in consultation.

Pulse 88, more feeble; skin moderately cool; no urine had been passed since the first visit, and none had been secreted. Vomiting continues, but less was thrown up. The entire body and limbs were lemon-colored. Strength rapidly failing; the mind begins to wander. His answers, however, are prompt and correct.

The patient died between 11 and 12 o'clock of the same evening, with little change except a rapid sinking. The duration of the disease was four days; under treatment, only three.

No remedy appeared to check the progress of the disease, or ameliorate the symptoms, except, perhaps, the cathartic given at the first visit. No autopsy was made. From inquiries since his death, it has been satisfactorily ascertained that he had visited one or two West India vessels infected with yellow fever, but for certain reasons refused to disclose the fact.

Dr. Clark referred to local exposure on board of vessels which have arrived from yellow fever ports, as the direct cause of the sickness in each of these cases, and in several other instances which had come under his own observation.

Case III.—Patrick Bayle, 20 years of age, had been on board the schooner "Julia Rogers," from Wilmington, N. C., loaded with tar, &c. He was taken sick on the 18th of July, and died on the 23d. He had a dry tongue, a dusky skin, epistaxis, a slow and soft pulse, some retching, but no vomiting. He had muscular strength enough to walk into the street, get into a carriage, and ride two miles, with but little discomfort, the day before his death.

Cases IV. and V.—Mr. and Mrs. Isley, of Chelsea, went on board the same barque on the 17th, and staid until the 19th, when they went ashore well; but were both taken sick the next day, and had, when seen by Dr. C. on the 26th, well developed yellow fever. These patients were treated by Dr. Wheeler, of Chelsea, and both recovered. An infant child which was with them was not affected.

These cases, and many others equally well traced, make it quite certain that the fever can be imported and communicated from vessels arriving in this way from yellow fever ports, and mark distinctly the wisdom and necessity of putting them under surveillance, until they shall be proved to be, sanitarily, in good order.

Aug. 23d.—*Cancer of the Stomach, followed by adhesion to the abdominal parietes, and the formation of an abscess in the latter.* The specimen shown by Dr. Ellis was removed from an intemperate man above fifty years of age, who had been for some time under the care of Dr. Buckingham, by whom the case was reported to the Society for Medical Observation. For about a year the patient had been subject to nausea, and occasionally vomiting. His general appearance was that of a man suffering from great anæmia, but under tonic treatment he improved somewhat, and was able to ride out. Four or five weeks before his death, he vomited a dark brownish substance, and from that time constantly failed. This vomiting came on suddenly, at a time when he was doing well, gaining in flesh, with increasing appetite, and upon the day that a medical electrician was surreptitiously introduced, who passed a galvanic current through the stomach, for more than an hour at each sitting, on three successive days. Vomiting was at once excited, and continued until his death, accompanied

with the most excruciating pain. Three months before, a slightly movable tumor, about an inch and a half in diameter, made its appearance beneath the ribs, to the left of the median line. At this part was a strong pulsation. Previously to the use of the galvanic current, this tumor had apparently diminished in size, was not painful, except upon firm pressure, and at times, for several days, the pulsation was not perceptible to the patient. After that time, his whole condition was changed, as above stated.

*Sectio Cadaveris.*—At the time of the examination, the swelling mentioned above was crepitant. The left rectus muscle, a short distance below the ribs, was adherent to the stomach, the transverse colon and the liver.

The stomach was of the usual size. Occupying, and entirely surrounding the last four or five inches of the pyloric portion, was a morbid growth, upward of half an inch in thickness at its circumference; the line of demarkation between it and the healthy tissue being sharply defined. The mucous membrane extended a short distance over its edge, but was elsewhere entirely wanting. The exposed surface was irregular, deeply ulcerated, of a brownish color, and quite offensive. It apparently originated in the submucous cellular coat, but this point was difficult to decide, as the disease commenced abruptly in the part mentioned—all of the coats being more or less involved, and converted into an opaque, whitish tissue. In some parts, a somewhat translucent appearance was noticed, as when the muscular coat is hypertrophied. The disease was much thicker at the confines than within them, where it measured perhaps three or four lines.

External to the stomach were smooth round or oval masses, from half an inch to two inches in diameter. One of these, which was incised, contained a thick, milky fluid. This was filled with large, irregular cells, containing large nuclei and nucleoli. The appearances, both to the naked eye and microscopically, were those of encephaloid. In the disease occupying the stomach, cells were found; not so characteristic as those above described, but sufficiently so, when taken in connection with them, to indicate the identity of the two.

The enlargement noticed externally was caused by an abscess, about five inches in length and two in breadth, in and beneath the rectus muscle. At one point the muscle had been nearly perforated, so that the pus lay just beneath the skin. This abscess communicated with the interior of the stomach, through an opening situated about an inch and a half from the pylorus. No pus was noticed in the stomach, but the dark brown color of the contents would have prevented its detection, unless the quantity had been very large. In that limited portion of the liver which adhered to the diseased mass, was a little pus. The organ was elsewhere healthy. Other organs not remarkable.

Aug. 23d.—*Cancer of the Ascending Colon, terminating in Perforation and circumscribed Peritonitis.* The specimen was shown by Dr. Ellis.

The patient was a married woman, 68 years of age, who had been under the care of Dr. Jeffries. She had always enjoyed good health, with the exception that, for some time previous to her illness, she had been subject to what were considered "bilious attacks." Towards

the close of last year, she had an attack of apoplexy, from which she recovered. Four or five weeks before death, she was attacked with chills, pains in various parts of the body, and lassitude; in a word, the symptoms were those of commencing typhoid fever. These had lasted four or five days before she was seen by her attending physician, when it was ascertained that she had taken food as usual, and that there had been slight diarrhœa. Nothing unnatural was detected by a thorough examination. The abdomen was soft, and not in the least tender in any part. Pulse 76. Mind perfectly clear. After a gentle aperient she felt decidedly better, and on the third day complained of nothing but prostration. Pulse 64. For a fortnight, she continued very comfortable, but showed no disposition to take food. Though there was no pain nor uneasiness, and the coat disappeared from the tongue, the latter remained red and dry, and there was no decided improvement. Two days afterward, she did not feel so well, and complained of a little uneasiness in the right side of the abdomen, which was also full and tender. The pain extended from the hepatic region upward to the shoulder and arm.

Two weeks before her death, she was suddenly attacked with severe spasmodic pain in the right hypochondrium, attended by nausea and retching. The pulse was 80, and rather small. There was great tenderness, predominating in the hepatic region, but felt also below. In about an hour and a half, the acute pain subsided, but the tenderness remained, and, shortly after, became more marked in the neighborhood of the ileum, where there were also considerable fulness and firmness. These symptoms persisting, she gradually sank and died on July 20th.

*Sectio Cadaveris.*—On examination of the body, the parietes of the lower part of the right side of the abdomen were found adherent to the organ below. A separation was, however, effected with but little difficulty. The parts involved were of a green color, quite offensive, and surrounded by pus, the exact seat of which was not ascertained. Still, there was no general peritonitis. On opening the large intestine, it was found healthy, with the exception of the part just above the cœcum. At this point was a morbid growth, involving the whole circumference of the colon. The size of the canal was much less than that of the parts above and below, though the constriction was not sufficient to cause any great accumulation of fæcal matter. The diseased portion was between two and three inches in breadth, and elevated about three lines above the mucous surface, from which it rose abruptly. Its margin was so sharply defined that it was difficult to say where the disease originated; but the submucous cellular tissue was probably its primary seat, though all the coats were, for the most part, involved. With the exception of the margin, where the mucous membrane still remained, the surface of the disease was very irregular, dark and ulcerated. The tissue was pretty firm, and of a whitish color. Examined microscopically, it was found to contain such cells as are usually found in cancerous growths. A free opening, two lines in diameter, existed in the wall of the intestine, establishing a communication with the peritoneal cavity, at the point where the adhesion and pus were found. The other orgar [illegible] e examined, and found healthy.

Dr. Jackson remarked, as to the st [illegible] shown, that he did not

remember to have before seen the pylorus involved in a case of encephaloid disease—its situation, at a little distance from this important part of the organ, probably accounting for the comparative latency of the disease. The involving of the abdominal parietes had not before been noticed, so far as he was aware, although an external opening had been known to be effected.

The liver, in this case, was healthy—a fact worthy to be noted, as this organ generally contains encephaloid masses where the stomach is affected; and Dr. J. thought that it might be explained upon the supposition of an absorption of the cancerous matter by the gastric branches of the vena porta; the question of priority not having been sufficiently regarded by pathologists.

Aug. 23d.—*Tænia Solium.* Dr. Jackson reported the following history of the case, which he had lately received from Mr. T. H. Pinkerton. The patient, who was under the care of Mr. P., was a merchant in this city, and he had always resided here; age 41 years. His health had been sufficiently good until the summer of 1854, when he was attacked with vertigo and a sinking sensation in the stomach, with much craving for food, particularly early in the morning. These symptoms continued unabated until March, 1856, and he then applied to Dr. ——. The case was considered one of jaundice, and was so treated for three months, the chief complaint being of acute pain in the stomach, with indigestion, rigors occasionally, cold feet, and restlessness at night.

Aug. 3d.—Mr. P. was called and found him much excited, having just passed some six feet of a living tænia, which he said he had accidentally broken off. He was ordered a light supper, and to eat Indian gruel alone for the following week, at the end of which time he complained somewhat of debility.

12th.—He was ordered the following: ℞. Podophyllin, gr. iij.; leptandrin, gr. ij.; cypripedin, gr. vi. M. One half to be taken, and the remainder in three hours, with some nourishment between them. After two powders, had a dejection at 4, P.M., and with it 17 feet 9 inches of tapeworm, which was living, when passed. Still complained of debility and considerable pain in the epigastrium. Warm fomentations were applied externally, and one drachm of tincture of hops was given, every four hours, until he was relieved.

From this time until Dec. 25th, he remained about the same, still complaining of uneasy feelings at the epigastrium, but able to attend to his business. He had, however, several severe rigors at intervals, with prostration, &c., lasting half an hour.

At the last-named date (Dec. 25th), he had a recurrence of the faintness and vertigo. Mr. P. was again called, and prescribed half an ounce of kousso in half a pint of water; one third of this quantity to be taken every twenty minutes, and lemonade to be drunk freely. At the end of three hours this was followed with ol. ricini, ℥i.; in thirty minutes he had a free and very dark dejection, and with it 20 feet of living tapeworm. The symptoms after this remained about the same. He still had pain in the region of the stomach and liver, with constipation, thirst, irregular appetite and general debility. The urine was very high colored. A liberal diet, with tonics, was then tried, and he gradually improved and resumed his ordinary avocations. Dr. J. saw this last specimen, which was quite as slender at one extremity as it

usually is near the head; but no head was found. If the head was left in the body, it must either have grown very rapidly during the next three months, or there must have been two worms.

Jan. 28th, 1857.—Another fragment of tænia, six inches in length, was passed alive. He then took a strong decoction of squash seeds, which he continued one week, and at the end of that time he discharged another piece of the worm, 17 inches long, which was dead. The tonic treatment, with a good diet, was continued until March 15th, when the symptoms returned as in the December previous.

March 18th.—The kousso was again prescribed as before, and in four hours he discharged 21 feet of living tænia, including the head. All the fragments, taken together, measured 71 feet, 3 inches.

The patient, after the last date, had a continuance of the gastric pain, dyspepsia and debility, during three months, but these seem entirely relieved, and he has since enjoyed good health.

In regard to the diet of this patient, he stated that he was very fond of pork, that he often dined upon it twice and sometimes three times during the week, and on several occasions he had eaten it raw.

The specimen, which was an uncommonly fine one, and was shown to the Society some months ago, is now in the Museum of the Medical College, and has a special interest attached to it, inasmuch as it has been figured and very minutely described by Dr. Weinland in his admirable monograph on the "Tapeworms of Man," just published (page 40).

Aug. 23d.—*Large Ovarian Tumor; Operation; Result Unfavorable.* Case reported by Dr. J. M. Warren.

The patient was 19 years old, and was in good health until eighteen months since, when she had an inflammatory attack in the region of the right ovary, which lasted about three weeks. This was in the month of February.

In June, she first perceived the present tumor, which increased so as to give her great inconvenience, principally in breathing, and had required tapping nine times—the last time, about a week since, when the distension of the abdomen and the compression of the lungs was so great, that she thought it impossible for her to have lived until the present time, unless she had obtained relief.

Tapping was last attempted below the umbilicus, but failed—blood alone coming away. It was again done above this point, and, as was shown afterward, one of the cysts only was evacuated, which afforded her temporary relief.

When Dr. W. first saw her, the tumor extended from the pelvis nearly to the upper part of the sternum, forcing up and almost obliterating the thoracic cavity. The waist measured thirty-six inches in circumference, and from the sternum to the pubis, over the tumor, measured nineteen inches. Her size had been much diminished by tapping a week previous.

Numerous solid tumors were felt in various parts of the abdomen. Through the vagina, the os uteri could be distinguished, being quite small; and the body of the uterus, apparently retroverted, was felt in the rectum. The menstrual secretion was regular, and the other functions were naturally performed. The patient suffered principally from the weight of the tumor, and from a feeling of threatened suffocation.

Having examined her in consultation with Drs. Storer and Cabot, it was decided to recommend to her the operation, not concealing from her its full danger. This was accordingly done, and she at once requested that it might be performed, saying that she could not live much longer in the state she was then in, and that she was fully prepared to meet any danger, if there was the slightest prospect of success.

The operation was done on the 27th of June. The patient being fully etherized, and it being ascertained that the bladder was empty, an incision was made from the umbilicus to the pubis. A slight dissection exposed the tumor. It was at once found that the sac was extensively adherent, and at the seat of the last attempt at puncturing was a thickening of the sac, and an effusion of blood which covered a space of four inches or more. These adhesions being partially separated and the sac punctured, about ten or twelve pounds of water of a light color were evacuated. This partially diminished the size of the tumor, but not sufficiently to allow of its being raised out of the abdominal cavity. A trochar was therefore passed through the first sac, and the second, which lay above it, punctured, and about ten pounds more of water drawn off, of a different color from the first. The arm of the operator was now stripped to the elbow, and passed into the cavity of the abdomen. The adhesions separated, the large remaining tumor, consisting of solid substance, was raised from its bed. It was now found that the omentum was adherent; this was torn from the tumor with the handle of the knife. The pedicle, consisting of the right broad ligament, about eight inches in breadth, was tied with three ligatures, the pedicle divided, and the tumor, which weighed about sixteen pounds, removed.

It was now found that some bleeding was going on in the abdomen; and search being made, numerous vessels from the torn omentum were discovered to be bleeding freely, and required ligatures of detached portions of this organ.

During the operation, the intestines, which were crowded into the upper part of the abdominal cavity, were not seen at all; and had it not been for the necessity of searching for bleeding vessels, they would not have been at all exposed to the air, so carefully were they guarded from escaping through the wound.

The ligatures were drawn out at either end of the wound; that of the pedicle being firmly secured over a linen roller, the wound was brought together by sutures, and a firm compressory bandage placed on the abdomen over a mass of compresses.

The patient seemed at first much exhausted by the operation, but rallied by the use of a little spirit.

On the 27th, it was found that she had passed a quiet night, and was entirely free from pain. The pulse was quick; no heat; a small dose of the solution of the sulphate of morphia was ordered to be taken every three hours.

On the 28th, she reported herself as comfortable. Pulse 140. She vomited some champagne she had taken.

On the 29th, said she felt better; pulse 120. Dr. Channing being present, Dr. W. dressed the wound in the abdomen, which looked well. There was no swelling nor discharge.

July 1st, she sank suddenly in the morning, and died about 9 o'clock.

*Sectio Cadaveris.*—On examination, the wound seemed well united. The pedicle was fixed to the abdominal walls, and fenced off from the abdominal cavity. The intestines were glued together, and united by slight adhesion to the lining membrane of the peritoneal cavity. A small quantity of purulent serum escaped.

The uterus was normal. The other organs also were perfectly healthy.

It is an interesting fact, that from the time of the operation until her death, she never acknowledged the slightest sensation of pain, and, until the very hour of death, her chance for recovery seemed good. The only bad symptoms were quick pulse and irritability of the stomach after the third day.

It seemed highly probable, that if the adhesions caused by the necessary tapping had not existed, the operation would have had a favorable termination.

Sept. 13th.—*Supra-Condyloid Process of the Humerus.* Dr. Hodges exhibited two specimens of the "Supra-Condyloid process" of the humerus, obtained from the dissecting room, and also the supra-condyloid foramen in a humerus of a cat. This process was first described by Dr. Knox, of Edinburgh, in 1847, for although Tiedemann in his Tabulae Arteriarum (1822), figures it in connection with an arterial anomaly, and speaks of it as "an unusual excrescence of the humerus," he does not appear to have appreciated its importance. This was first made known by the careful observations of John Struthers of Edinburgh, and published in an elaborate article, remarkable in many respects, entitled "on some points in the abnormal anatomy of the arm," contained in Nos. XXVI. and XXVII. of the British and Foreign Medico-Chirurgical Review (1854), from which the following account of this process was derived by Dr. H., and with which the specimens shown by him accurately coincided.

The supra-condyloid process is a more or less hook-shaped process, which is occasionally developed on the inner surface of the humerus, two inches above the internal condyle. A ligament is continued from it to near the condyle, completing an arch through which the median nerve and brachial artery pass, after deviating from their usual course; the whole forming an arrangement analogous to that which obtains in many animals, in the passage of the nerve and artery through an opening in the humerus, in the same situation, called the supra-condyloid foramen.

The situation of the process is remarkably constant, and it varies in length from a tenth to three quarters of an inch, projecting away from the bone, forward, downward and inward; it is flattened from before backward, tapers to a blunt point, and if prolonged for an inch would form an arch of bone joining the ridge half an inch above the condyle.

In 9 out of 16 instances examined by Struthers, the undivided brachial artery deviated and passed round the process; in 4 there was a high division, one of the arteries keeping normally along the biceps, the other deviating, to pass round the process; in Tiedemann's case the deviating vessel was a high interosseous. In 3 cases there was no deviation of the artery, though the process was present. In every case where there was a process, whether short or long, and the median *nerve* was examined, it deviated to pass under the process lying inter-

nal to the artery, whilst in three of these instances the artery did not deviate with it. This points to the inference that the supra-condyloid foramen is provided not so much for the artery as is commonly supposed, but principally for the nerve. It may be compared in this respect to the supra-scapular notch which always transmits the nerve, while the artery passes over the ligament and only occasionally under it with the nerve. A high origin of the pronator radii teres muscle appears to be frequently if not generally present where the supra-condyloid process exists. The artery may also deviate in the manner above described, independent of the existence of a supra-condyloid process, as in four cases described and figured by Mr. Quain, and in each of which the median nerve followed the artery.

The process may be felt during life, and then becomes practically important as an index to the position of the artery. The artery leaves the biceps near the insertion of the coraco-brachialis, and passes down with the median nerve along the internal intermuscular septum to reach the concavity of the process, around which it turns, and as at this point it lies three-fourths of an inch from the inner edge of the biceps, the ordinary incision along the border of that muscle would scarcely enable the surgeon to place a ligature around it.

The supra-condyloid foramen is found among the Quadramana, Rodentia, Edentata, Marsupialia, and more frequently among the Carnivora. The foramen and the process occupy the same proportional situation. The arch by which the foramen is at length completed grows, as a process, from above downward. It is developed from the shaft and again unites with the shaft below, and is completed altogether independent of the epiphyses of the lower end of the bone; it thus resembles during its early stages the supra-condyloid process in the human arm. In the arm of an adult cat, Struthers found the arch represented by a ligament only, which both above and below formed a short spiculum of bone.

Although there is no doubt that this foramen affords protection to the parts which it transmits, it is not understood precisely in what manner it does so in the animals in which it exists, nor why they, more than some others, require such an arrangement for the protection of the artery and nerve.

Sept. 13th.—*Ascites in connection with Acute Inflammation of the Vena Porta.* Dr. Jackson reported the case, which had been lately under his care.

The patient was an Irish laborer, æt. 48; large frame; health robust; moderate drinker. Entered the Hospital June 22d, and reported that, having wet his feet three weeks previously, swelling of abdomen came on the same night, and increased from that time, with œdema of the lower extremities. There was also dyspnœa from swelling. Very slight cough "caused pain in the epigastrium," a symptom that may probably have been connected with the inflammation of the vein, but if so, it was the only one noticed. For a week before the abdomen swelled, the urine was high colored, and diminished in quantity one half. On July 27th, nearly twelve quarts of serum were drawn from the abdomen. He gradually sank, and died August 11th. On dissection, six pints of serum were found in the peritoneal cavity. The liver [illegible]ed two pounds eight ounces, presenting a marked case

of "cirrhosis." The splenic branch of the vena porta was completely plugged up; quite soft, grumous coagula existing in the trunk; the mesenteric branch was not affected. This last, Dr. J. remarked, was a curious negative fact in connection with the ascites; the obstruction in the trunk of the vein being very partial. Complete obstruction of the great veins is so often seen without serous effusion, that the ascites might be regarded as a mere coincidence of the phlebitis if it had not come on so suddenly. The spleen weighed 14½ ounces, but was by no means so large as it is occasionally seen in connection with cirrhosis, and yet, as just stated, the vein was quite closed.

Sept. 13th—*Hepatic Abscess, communicating with the Right Lung; Operation; Discharge of twelve pints of Pus.* Case reported by Dr. G. H. Gay.

Mr. P., æt. 53, states that for the last two years he has not observed anything worthy of remark as to his general health, except a feeling of considerable numbness and stiffness in the left hypochondriac region, which entirely disappeared when the right side was attacked.

The color of the skin of the face was more or less of a yellowish hue, so that in common language he would be said to "look bilious."

The present sickness dates from June 25th, 1858, and, as he thinks, was caused by taking cold.

The first prominent symptom was a fixed, pretty severe deep-seated pain in the lower part of the right thorax in the hypochondriac region, about the situation of the eighth and ninth ribs. The pain has been constant at that point. Some time after the commencement of the pain, there was noticed œdema of the lower extremities, of the abdominal parietes, and also ascites, extending above the umbilicus. The skin of the face became more yellow, though it was never of a very deep color.

During the first part of July, rigors were frequent, coming on regularly in the after part of the day, for a week or more. The pain and distress in the side increased. The ascites and œdema were somewhat reduced by appropriate internal remedies. In the latter part o July, a difficulty in breathing was experienced, and a dry hacking cough commenced. There was shortly a mere frothy expectoration, slight in quantity, which soon became mostly mucus. As these pulmonary symptoms were more fully developed, the pain in the side was more and more intense, radiating from the point of origin and extending through most of the right chest. As the dyspnœa increased, there was also a feeling of uncomfortable fulness in the region where the pain commenced. These symptoms were temporarily relieved by hop fomentations. Coughing and any pressure on that side aggravated the distress. The most comfortable position for the patient was on the right side and propped up, and, when out of bed, leaning over a chair.

About this time, as well as the patient can remember, a small swelling, of the size of an orange, was observed on the external part of the right thorax, situated nearly in the region of the fourth rib, and two inches or more from the sternum. This seemed to increase daily, and with its increase a diminution of the difficulty in breathing was noticed.

By auscultation, no breathing was heard in the lower half of the *right lung*, which gave a flat sound on percussion. There was never

any rusty-colored expectoration, nor any particular pain in the spot where the swelling commenced, externally, at the fourth rib.

Between the second and third week of August, the pain in the hypochondriac region was more severe, lasting and throbbing. In the first part of the third week of August, there was a distressing and long paroxysm of coughing at 5, A.M., and all of a sudden there was an expectoration of a large quantity of pus. It came so fast, and in such quantity for an hour, as nearly to choke the patient. There was then an interval of rest, when the coughing returned, and at 10, A.M., he had raised over three pints of yellowish white pus. From that time there has been daily more or less coughing, and the average amount of expectoration has been a common spit-cup full in twenty-four hours, of a mixture of pus and mucus. The external swelling, which had become very large, tender and painful, did not appear to diminish any after the free expectoration. By auscultation, at this time, gurgling was heard, as from a large cavity. At the commencement of the fourth week of August, there was a very firm œdema over the seventh, eighth and ninth ribs, with redness and tenderness of the skin. The pectoral swelling was also very tender. The first time that Dr. G. saw the patient, Aug. 27th, 1858, in consultation with Dr. Windship, the skin of the face was very yellow, the countenance anxious and distressed, and the respiration labored and hurried. By percussion, there was flatness over nearly two thirds of the inferior part of the right thorax. The respiratory murmur, if any, was masked by the strong impulse of the heart's pulsations. The pulse was from 120 to 130, and much stronger than might be expected under the circumstances. There was a general œdema of both lower extremities, of the abdominal parietes, and of the right side of the thorax, as far up as the fifth and sixth ribs. The abdominal cavity was moderately distended with liquid. The inferior edge of the liver could not be felt on account of the general anasarcous condition, nor was there any special fulness at that region to indicate any unnatural swelling or displacement of that organ.

Along the outer part of the right hypochondriac region, more particularly about the seventh, eighth and ninth ribs, was a diffused redness and swelling of the skin, very painful and tender to the touch. At this part, and a little lower down, there was a distinct feeling of *deep* fluctuation. The skin was partly adherent and partly movable. It was not deemed advisable to operate at that time, as the skin was not fully adherent.

The swelling in the mammary or pectoral region was daily enlarging, being now nearly the size of an infant's head, regularly round, tense, tender to the touch, and fluctuating. The liquid seemed to be just beneath the skin, which was of its natural color. By gentle and continued pressure on the swelling, it entirely disappeared, and an opening could be distinctly felt between the fourth and fifth ribs, leading into the cavity of the chest. As the liquid disappeared from this point, a rising up of the hypochondriac swelling was seen, showing a communication between the two, along the cavity of the chest. After pressing upon and emptying the mammary swelling, it would slowly rise up again, like erectile tissue. This emptying of the swelling, when slowly and gently done, did not cause much uneasiness to the patient, except from the tenderness, and sometimes a slight coughing.

At no time during the sickness had there been any nausea or vomiting. The bowels generally were costive, and the urine dark colored.

A large flaxseed poultice was directed for the hypochondriac swelling, and, on the 30th, all the symptoms being more severe, the redness more extended and the fluctuation more superficial, an opening was made, two and a half inches long, in the most prominent portion of the swelling. There was an immediate and profuse discharge of thick yellow pus and some small sloughs, amounting in about five minutes to *twelve pints*, by measurement. The mammary swelling instantly subsided, and a hole was felt passing into the chest, large enough to admit easily the ends of two fingers. The patient expressed great relief, and there was no feeling of exhaustion, nor any perceptible change in the pulse. Stimulants were administered and advised, together with a free nourishing diet.

The operation was done with the patient in his usual position, propped up and resting on his right side.

In recapitulating the symptoms will be found—a fixed, constant and deep-seated pain in the region of the seventh, eighth and ninth ribs; œdema of both lower extremities and ascites; rigors coming on soon after the attack, mostly in the after part of the day; *a continuance of these symptoms for a month without any pulmonary affection*; then dyspnœa, a dry hacking cough, and soon after an expectoration of mucus—mucus and pus; increase of the dyspnœa and of the pain in the hypochondriac region, which radiated through the chest; the appearance, externally, of a swelling near the mammary region; a more severe and throbbing pain a few days previous to the sudden expectoration of three pints of pus; the continued enlargement of the mammary swelling; soreness, redness, swelling and fluctuation in the hypochondriac region; an evident communication of the mammary swelling with the hypochondrium, through the interior of the thorax; the profuse quantity of pus after the operation, and the immediate subsidence of the mammary swelling.

Stimulants and a free nourishing regimen were advised to be continued. The relief after the operation was very great, and the pulse and strength have much improved. There is scarcely any cough or expectoration. The wound discharges from one to two pints of pus daily. There has been no sign of the mammary swelling since the operation. By percussion, the flatness extends over a much smaller surface, and there is a freer action of the lungs in the respiration. The dyspnœa has almost gone. Although the patient's general symptoms are better than might be expected, still it is impossible to say at present what the result will be, the prognosis being, in the vast majority of cases, a fatal termination.

Oct. 28th.—Heard, to-day, that the patient died Oct. 24th. The cough had entirely ceased till a week before his death. The discharge from the side was about a pint daily. A week ago, the discharge was not free from the wound, when the cough re-commenced and continued till death. No *post mortem* could be obtained.

Dr. C. E. Ware mentioned, in connection, the following case, which bore resemblance to that reported by Dr. Gay. The patient came into the Hospital, where he first saw him. The affection came on like pleurisy; there was flatness, and absence of respiratory sound over *the whole* right chest, the left presenting nothing abnormal. There was

œdema of the upper and lower extremities, moderate cough and copious purulent expectoration, amounting to a pint daily. The patient's health was gradually failing. He was tapped on the right side, at a point about two, or two and a half inches outside, and one inch below the nipple, and a large quantity of pus discharged. The lung immediately expanded, giving a sub-crepitant râle, and returning respiratory sound. There was also a cessation of the purulent expectoration. The œdema also subsided and the other symptoms were relieved. The pus again collecting, however, recourse was again had to tapping, and with like results. She was tapped a third time, and the canula allowed to remain, which it became necessary to remove on the third or fourth day, on account of the irritation produced by it. The œdema did not again return, but the dyspnœa was not so much relieved as in the former operations. A fistulous opening still remains, which constantly discharges. The respiratory sound is gradually returning, although the patient has not gained much in flesh or strength. The amount expectorated daily is about an ounce and a half. There had been suppuration of one of the lymphatic glands of the neck, but there is no evidence of tubercle.

With regard to abscess of the liver, Dr. Jackson said that he had been struck, in some cases that he had seen, with the absence of local symptoms, and alluded to three cases in illustration. The first was that of a patient at South Boston, who was ill for three or four weeks, with supposed typhoid fever, disease of the liver not being once suspected. On examination after death, a large abscess of the liver was found. No other disease was found.

The second case occurred at the Hospital, about a year ago; an abscess opening through the diaphragm, and communicating with the lung. There was never any yellowness of the skin, nor were there any symptoms indicative of abscess of the liver. The third case was that of a naval surgeon, which occurred some years since. The patient was ill for a long time, and had great enlargement of the right side, and purulent expectoration, but no special hepatic symptoms. In this case, the abscess opened through the diaphragm, and after death the lower third of the right lung and pleura was found broken down.

Dr. J. further remarked, that in case of inflammation about the base of the right lung, yellowness of the skin sometimes occurs; and, on the other hand, that abscess of the liver might probably commence with symptoms of pneumonia or pleurisy.

Dr. Putnam remarked that he saw a case of abscess of the liver in a seafaring man, some time since, in which there was no jaundice a fortnight before death. Three quarts of pus were found in the centre of the liver.

Dr. Strong mentioned a case of this affection, that of a patient lately returned from the East, in which the symptoms were such as to leave no doubt as to the seat and nature of the disease. There was pain, and the abscess pointed and discharged. The patient sank and died; and, on examination, the abscess was found to occupy the large lobe. The symptoms were all referrible to the liver.

Dr. Jackson alluded to a case of chronic abscess of the liver, in connection with ulceration of the large intestine, that he saw many years ago in a man who had contracted diarrhœa in the tropics, and which abscess would be considered by some as metastatic.

[A case of abscess of the liver, together with chronic diarrhœa, was reported to the Society many years ago by Dr. Channing, and is to be found in the first volume of the Boston Medical and Surgical Journal, page 628, in which the diarrhœa lasted three months and a half; and, after death, extensive ulceration of the large intestine was found, and in the posterior part of the liver an abscess containing ℥viij. of pus. In this case "no symptom of disease of this organ was discovered during life by the minute investigation which was made into the state of the abdominal viscera; nor did the general aspect of the patient excite a suspicion of latent disease of this organ."—SECRETARY.]

SEPT. 13th.—*Congenital Stricture of the Anus.* Specimen shown by Dr. JACKSON. The patient died at the age of 18 months, of a dysenteric affection. At birth, the opening was only large enough to admit a probe. It was gradually enlarged by the aid of bougies. The intestine above the stricture was considerably dilated. The specimen was from Dr. Seaverns, of Jamaica Plain.

SEPT. 13th.—*Scrofulous Disease of the entire Humerus; Rapid Progress; Sub-periosteal Abscess; Amputation at the Shoulder-joint; Recovery.* Case reported by Dr. GAY.

James Scolan, æt. 26, was seized with a severe pain in the upper part of the left arm, five years ago, after taking cold at the end of a hard day's work. In a few days a swelling appeared which increased and became very painful until it was opened. There was a free discharge of thick, yellow matter. The swelling gradually subsided, the discharge ceased, and the wound was entirely cicatrized. There was no further trouble from it, except an occasional pain and slight stiffness.

At his entrance into the Massachusetts General Hospital, July 15, 1858, there was a large, fluctuating swelling about the upper and inner part of the shoulder, and along the border of the axilla.

This swelling had been observed for five weeks, and appeared with severe chills and headache, and with soreness and swelling about the shoulder, after a hard day's work.

The fluctuation seemed very superficial. There was soreness about the joint, but no stiffness of any amount. The patient is a strong, fleshy man, and was not confined to his bed. The rest of the arm appeared well.

The abscess was opened July 17th, and there was a profuse discharge of an offensive, dirty, purulent liquid. The finger and director were passed freely into the wound, but nothing like denuded bone could be felt. He was much relieved after the operation, and, the next morning at the visit, was very comfortable and was walking about the ward. The discharge continued free. There was no change in any of the symptoms till the 30th, when there was a very severe pain just above the elbow, and a general feeling of aching over the body as if he had taken cold. The next day the pain had increased, and there was a rapid swelling, with a soreness and doughy feeling to the touch. There was no redness of the skin, but rather a dead paleness. Two days afterward, there was an indistinct feeling of fluctuation. The tenderness and pain were excessive. The whole upper arm was swollen. The discharge continued free from the opening. On

the 4th, the pain was so excruciating that an incision was made above the elbow, an inch deep, but no pus came. The relief was only slight. The forearm and hand were swollen and œdematous. On the 6th, a still deeper incision was made, about three inches above the joint. Nearly a pint of greenish yellow and putrid pus came away. On introducing the finger, the bone was entirely denuded and rough throughout its whole circumference as far as the finger could reach. A director detected a much greater extent of denuded bone. Stimulants and a nourishing regimen were freely administered. The discharge from the upper and lower part of the humerus was so great that his strength began to give way. He could not now bend his elbow, on account of the pain and soreness in the joint. On his entrance to the Hospital, there was not the slightest indication of any trouble whatever in the elbow-joint or in its vicinity. The patient was rapidly failing. The man, since the operation, had been kept perfectly quiet and nearly straight on a pillow. On the 25th, a slight projection was seen about the middle of the humerus, and on passing the finger into the opening below, the bone was found to be broken at about its middle, and the ends soft and crummy. The patient did not know when it was broken. There had not been any increase of pain at any time at that point. The disease evidently extended to the elbow-joint, and there was a fair presumption to suppose that the head of the humerus was also affected.

From the patient's general condition, and the rapid progress in the destruction of the bone, one of two operations must be immediately done, *exsection of the entire humerus*, or amputation at the shoulder-joint. The already greatly reduced state of the patient's strength, the purulent discharge, which must necessarily be very large, and the very probably future uselessness of the whole arm after the exsection, were strong indications for the amputation. On the 28th, the arm was removed at the shoulder-joint. On examination, the humerus was found extensively diseased throughout. Just below the neck of the bone was a round hole large enough to admit the end of the little finger. The articulating surface of the head was healthy. A probe, introduced through this hole upward, traversed a large cavity involving nearly the whole substance of the head. The head was merely a thin shell. This cavity also extended downward into the shaft. Most of the shaft was full of small holes, and almost as light as a burnt bone. There was a small necrosed piece in the centre of the upper fragment. The two ends of the fracture were soft and easily broken down. The lower fragment was rough, eroded and partially necrosed. The articular cartilages were entirely gone, and the bone necrosed. The whole head of the radius was carious, and its articulating cartilage gone. The articulating surface of the ulna, and an inch downward on its radial side, was in a still further advanced state of caries. At no spot was there an appearance of an attempt to throw out new bony matter. The whole bone was dead.

The patient recovered, without any unpleasant symptom after the operation.

Sept. 27th.—*Strangulated Hernia; Apparent Reduction; Death; Hernia found Unreduced, with Rupture of the Intestine.*—The case, reported by Dr. Perry, was read by Dr. Hodges.

Miss ——, on Tuesday last, after a long walk, was taken with some pain in the lower part of the abdomen. She was menstruating at the time. Dr. Abbot being the nearest physician, was sent for, and prescribed a laudanum injection, which gave relief. On Wednesday, she had a continuance of the pain, and also vomiting. The laudanum injection was repeated without advice. On Thursday, the pain and vomiting still continuing, she was seen by Dr. Perry, her usual physician; and, on inquiry, he learned that she had a tumor of four years' standing; but insisting that it was a tumor such as is described in Dr. James Jackson's book, she would permit no examination being made, though the importance of it was fully laid before her, and urged by her mother and all her friends. On Saturday the pain and vomiting not abating, she consented to the examination. A crural hernia of the right side was detected, and after considerable manipulation was reduced, or, at least, the tumor made to disappear. The pain and vomiting ceased. She was entirely relieved, and on Sunday, Monday and Tuesday, her bowels were freely and thoroughly moved.

On Tuesday, a redness and inflammatory appearance, with a sense of fluctuation, was noticed about the tumor of the groin, which increased until Wednesday night, which was, however, a very comfortable one.

At noon on Thursday, she was seized with a sudden colicky pain, and died at 3 o'clock, P. M. Dr. J. M. Warren saw her at this time, but she was not in a condition to admit of any operative procedure. An autopsy was made by Dr. Ellis; a rupture of the intestine and an unreduced hernia were found, the hernia strangulated and in a gangrenous state, and the hernial sac being full of pus and sloughy matters. The intestine was empty above the strangulation.

The points of interest in the case are the relief of all symptoms following the apparent reduction; the thorough evacuation of the bowels on the three subsequent days, and within forty-eight hours of her death; and the inconsistency of these phenomena with the condition of things as found after death.

Dr Abbot stated that he was guided in his diagnosis and treatment by the statements of the mother and the patient herself, who both associated her sufferings with her period of life, thinking the catamenia might be about to cease. All the symptoms, according to their testimony, pointed to the uterus. He seemed inclined to question the assertion that the discharges from the bowels resembled those induced by a cathartic, and on inquiry he learned that the family were subsequently satisfied that there was not, during the whole course of her sickness, an evacuation produced by medicine. They were of opinion that all the medicine taken was ejected by vomiting. The matters passed had the appearance of having been some time in the bowels. Dr. A. regarded the case as interesting, from the temporary relief obtained by the return of the tumor, and the absence of general abdominal pain afterward, together with the want of external evidence of strangulation after the apparent reduction by Dr. Perry.

Sept. 27th.—*Stone in the Bladder, apparently congenital; great Suffering; Stone adherent; Lithotomy; Cure.* Case reported by Dr. J. Mason Warren. The boy was 14 years old, born in Rhode Island, of *Irish parents.* Almost from his birth, he had had symptoms of trouble

in the bladder, which had increased as he grew older. The symptoms were difficulty in voiding urine, occasional passing of blood, and paroxysms of great pain, latterly producing a kind of convulsion, in one of which Dr. W. saw him taken, when he first visited him. The violent attacks had a periodical character, coming on once or twice a year, and lasting two or three weeks at a time. At other times, he had comparative ease, although never entirely free from pain. The boy was rather small of his age, but well nourished, considering the amount of suffering he had undergone; the urine passed away continually. The patient was etherized, and a stone was at once detected; but at this, and at a subsequent examination, it was necessary to elevate the beak of the instrument to the summit of the bladder, in order to detect it, which was subsequently explained by its being found adherent at this point.

The bilateral operation was performed, and the cut made in the bladder by Dupuytren's double lithotome. The finger being passed into the bladder, detected the stone at its upper part, enveloped apparently in its folds. A polypus forceps was introduced, its edge seized, and the stone pulled to the neck of the bladder, but could not be drawn out. Supposing this to be owing to the size of the stone, the incision in the prostate gland was enlarged, but without effect—the stone still resisting all efforts at extraction. A large pair of French forceps were now passed in, and the stone being well grasped, assisted by the finger in the bladder, it was without much force extracted. It proved to be a mulberry calculus, of the size of a horse chestnut, the exterior half of it being covered with a membranous envelop, which at first resembled the mucous coat of the bladder, but which afterward proved to be fibrinous. A bit of elastic catheter was placed in the bladder, and allowed to remain until the third day. The patient was at once relieved from pain by the operation, and was well in two weeks.

The apparently congenital calculus; the severity of the pain; the nature of the calculus, which was of the hardest and roughest kind, being sawed with the greatest difficulty; the adherence of the stone to the bladder, instances of which are extremely rare; together with the entire and almost instantaneous relief from pain and other symptoms after so long a period of suffering, are facts well worthy of note in this case.

The two following cases were reported to the Society by Dr. J. M. Warren, one at the meeting of April 12th, and the other on June 28th.

*Colloid Disease of the Rectum.* Dr. W. showed the specimen, which was quite a rare one. The patient was a gentleman, 70 years of age, and, until within a few years, had enjoyed uninterrupted good health. He was first seen about six months ago, in consultation, when, both by the touch and with the speculum, a mass of colloid matter was found, having entire possession of the rectum, being most developed on the side of the prostate gland. At first, it was difficult to distinguish in what direction the fæces passed through the mass, but after a time an opening, which admitted the finger, was found in the back part of it. The patient was free from pain, and his principal trouble was an almost constant desire to evacuate the bowels, when a quantity highly fœtid substance, with a gangrenous odor, was discharged.

This was alleviated by opiate enemata. The patient gradually lost strength, and as the physical powers were reduced, the mind seemed to fail, just enough to take away almost entirely the terrors of the slow death which was impending. The immense and continued discharge of serum from the bowels depressed the patient like the loss of blood. For a week or two before his death, fæcal matter passed through the urethra. During the whole course of his disease, he never experienced a moment of what may be called pain. On examination after death, the whole rectum was found occupied by a mass of colloid disease. At the upper part of the rectum an aperture had been made by it into the bladder, which organ was contracted to the size of a hen's egg, and its interior coated over with a phosphatic deposit, so as entirely to conceal the mucous lining. The specimen shown to the Society was very much shorn of its proportions, from the impossibility of preserving the delicate tissue, like boiled rice or sago, which at once became detached from its internal part. Dr. Jackson took charge of the specimen to preserve.

*Amputation at the Hip-Joint.*

Dr. W. mentioned the case as an interesting one, from the fact of its being the first one ever done at the Hospital, and, so far as he knew, in Boston. The patient was a child, 6 years old, and was first seen by him on the 19th of June, at three o'clock, having been injured about two hours before. He was sitting on the curb stone of the sidewalk, when a truck wheeled round against him, crushing his limb against the stones. His injury at first was not detected; being lifted up by some passer-by, and placed upon his feet, not being able to support himself, he fell, and received, in addition to his other injuries, a violent blow upon the forehead. When brought to the Hospital, his state was as follows. He was quite faint, countenance livid, pulse small. The integuments of the thigh, near the hip, were nearly cut through by a semicircular wound, and on the outside a deep wound in the muscles communicated with the bone, which was fractured obliquely, and denuded nearly up to the joint. As the blood was flowing from this extensive wound, the case admitted of no delay, and amputation was at once proceeded to. The boy was first stimulated with as much spirit as he would bear, and ether was administered, which at once brought up the circulation. The limb was now separated at the fractured part, Dr. Shaw compressing the artery. Dissection was next made at the side of the bone, which was disarticulated with difficulty, both from the anatomical relation of the parts, these being obscured by ragged muscles, and, more especially, from the remaining portion of the femur being too short to be easily controlled in effecting the disarticulation. The capsule was, however, opened, and the bone dissected out with but little delay. The boy at this moment became deadly faint, and was only restored by using frictions of brandy and ammonia, the latter being applied also to the nostrils. He was likewise suspended by the remaining leg, so as to throw the blood to the brain, and under this treatment soon revived, although at one moment he seemed to be dead. The vessels were now tied, and the wound temporarily dressed. Just as this was finished, he a second time came in peril of his life. As is often the case with patients recovering from ether, he seemed disposed to vomit, and *in fact* a basin was held, and he threw up quite a quantity of liquid

substance. Immediately after this, he fell back as if exhausted, a cold sweat came over him, and the respiration and pulse ceased. The frictions, and other means for restoring suspended animation, were at once again resorted to, and Dr. W. proceeded to pass the finger into the mouth for the purpose of raising the epiglottis and making a passage for the air into the windpipe, and there encountered a mass of solid potato-like substance, with which, on further investigation, the whole mouth and fauces were found completely blocked, so as entirely to exclude the air, and almost suffocate the patient. The teeth had allowed the liquid contents of the stomach to pass between them, but had acted as a strainer to retain the solid matters in the mouth. The mouth being now cleared, and artificial respiration set up, the child gradually commenced to breathe, and in the course of half an hour was in a viable state. At nine, P.M., the limb was dressed, and he was taken to his bed in the ward of the Hospital. The patient lived thirteen days, and received during this time the most unremitting care from the nurse in charge of him, and from Mr. Dyer, the House-surgeon of the Hospital. The stump during this time became quite sloughy, and one or two abscesses formed in the groin. The whole wound, however, finally assumed a healthy appearance, and when there appeared to be every prospect of his having gone safely through the most dangerous part of the trial, he suddenly fell off, and died nearly a fortnight after the reception of the injury.

Sept. 27th.—*Inflammation of the Sublingual Gland.* Dr. Coale reported the case.

C. B. F., æt. 45, was troubled for a week with sore throat, tenderness of the parotids, and signs of a generally inflamed condition of the contiguous parts, especially the glands. This at last concentrated itself into a violent inflammation of the sublingual gland. Inside, the swelling was level with the teeth. Outside, the face was elongated an inch by a peculiarly hard resisting tumefaction. Scirrhus is the only thing which would give an idea of the hardness of this. There was a moderate degree of pain; great "drooling" of saliva from the gland. Not much pain, but great discomfort from the body of the tongue being so filled by tumefaction as to oust that organ, and require the mouth to be kept open. At night, this increased, the saliva going down the throat, and wakening the patient by getting into the larynx. The treatment consisted in blisters and gentle mercurial alteratives. On the third day, flocculi of pus were discharged with the saliva, though there was no pointing or collection of pus. The cure was complete in nine days from first seeing the patient.

Sept. 27th.—*Heart—Interventricular Opening.*—Dr. Jackson showed the specimen, which he had received from Dr. N. L. Folsom, of Dover, N. H., from a girl aged 11 years and 8 months; tall of her age, very slender; able to go to school occasionally, but often sick. She had had blueness of skin from birth; palpitation and dyspnœa. Had influenza last November, and died of phthisis on the 17th of this month. The opening in the septum would have admitted the end of the little finger; and the aorta arose, of full size, directly over it and about equally from the two ventricles. The pulmonary artery was rather small, and had but two valves. The two ventricles were about equally

thick; the left being thinner and the right much thicker than natural. Foramen ovale; small opening.

Dr. J. remarked that, as far as he had seen, the lividity was the exception and not the rule in these cases. An abnormal condition of the pulmonary artery of some sort, with thickening of the right ventricle, seems to be always found in interventricular openings.

Sept. 27th.—*Nursing after the Operation for Hare-Lip.* Dr. Warren said that some years since he had advocated, in this Society, the propriety of allowing the child to nurse after the operation for hare-lip, and had shown, by a number of cases, that this could be done without endangering union of the parts. Since that time he had followed this practice, and allowed all the patients, who were able to nurse, to do so. The advantages were, the greater quiet of the patient, and the less liability to disturbance of the bowels which almost always follows the change of diet, and which once or twice he had known to proceed to such an extent, as to defeat the operation. Dr. W. further remarked that he still preferred the suture to the needle, the latter, in spite of the greatest precaution, almost always leaving an ulceration, and being more troublesome to withdraw. On examining the interior of a hare-lip, after the skin has been approximated by sutures, Dr. W. said that a gaping wound will almost always be found, and one edge, generally the outer, projecting much beyond the other. The consequence is, a long delay in union, after every thing externally appears sound. To obviate this, he had been in the habit, after making the lower suture, and before cutting off the ends of the threads, to evert the lip with them, and make a suture on the inside. These threads being now cut off short, the suture takes care of itself. For dressing, he had generally used a bit of wet linen, of a single thickness, the edges being unravelled, so as to make it, when moistened, the more adherent to the face—this should be frequently removed by the mother when it becomes dry, and restored. It almost entirely prevents the suppuration about the stitches.

Oct. 11th.—*Puerperal Convulsions.*—Case reported by Dr. Ayer.

Was called to Mrs. S. in the morning of Sept. 25th. She was 22 years of age, short in stature, square built, with short neck, and pale countenance. Her husband, a shipmaster, had just sailed on a foreign voyage, and she had been much fatigued by preparations for his departure, and disappointed in not accompanying him. She was kneeling on the floor, with apparently strong labor pains. She had slight "show," I was told, and on examination, *per vaginam*, the os uteri was found pendulous, corresponding to the seventh month of pregnancy, and dilated to the size of a quarter dollar. The vagina was undilated and perfectly dry. The urine was free, and the bowels open. Rest was enjoined, and the evening visit found her condition unaltered—the labor had not advanced, and the pains had subsided.

26th. Morning visit.—The patient had been restless and feverish through the night; the pains had not returned. Her mind was confused—was unable to put out the tongue, or speak distinctly. The pulse was rapid but not strong, and the head hot. Ice was ordered to the head, sinapisms to the feet, and an enema, composed of six drachms of the tincture of assafœtida with two ounces of warm water.

At 11¾, A. M., Dr. A. was called from church. The patient was in convulsions—strong clonic spasms extending over the whole body—there being grinding of the teeth, and perfect insensibility. The pupil was sensibly contracted. The pulse disappeared under the fit, and returned slowly; its volume was moderate. The head was cooler than in the morning. There was no frothing at the mouth, but the breathing was sibilant. The rigidity of the arms continued through the intervals of the paroxysms. The convulsions recurred at intervals of from fifteen to thirty minutes during the afternoon. The symptoms of labor had increased, and every active pain was attended by a convulsion. The inhalation of ether was immediately resorted to, the ice to the head being continued. At 6 o'clock, P. M., the membranes were ruptured, and the uterine contractions soon increased in force. The convulsions, attending every active pain, were from two to five minutes in duration. At 8 o'clock, a drachm and a half of ergot, in decoction, was given by enema. In less than an hour the pains became decidedly stronger, as if influenced by the ergot. At 10½ in the evening, the patient was delivered of a seventh month still-born fœtus. Little blood was lost at the birth, and the placenta came away kindly. There was a respite of two hours, the patient remaining entirely unconscious; afterwards the convulsions returned with their former severity, and ether was continued at every attack. During the night she was very ill, and it was difficult to keep her on the bed.

27th, Monday morning.—The convulsions still continued; the febrile re-action had increased; pulse 100, and tense; pupils were yet contracted, and the patient was unconscious. Six leeches were ordered to the temples, and enemata and ice to be continued. Patient has been unable to swallow since yesterday noon. The convulsions continued through the day at short intervals, her tongue and lips being bitten, but without frothing at the mouth. The insensibility in the evening was complete.

28th.—Convulsions recurred through the night, but at longer intervals. Skin intensely hot; pulse rapid, though weak; patient unconscious. At 10½, A.M., she had a violent convulsion, which proved to be the last. The muscles began to relax, and she could take rice-water by the teaspoonful. She had taken a teaspoonful of cold water occasionally during the last twelve hours. The bowels and urine were free, and no serious abdominal symptoms occurred. The lochial discharge was very slight. She had, during a space of forty-seven hours, by estimate, at least fifty distinct and severe epileptic convulsions. During this time she inhaled 9½ pints of ether.

After the subsidence of the convulsions, the patient presented the usual symptoms of congestion of the brain. Six leeches were applied to the temples, after which the pulse became less rapid and small. The congestion began gradually to subside, and the pupils to dilate. No abdominal symptoms; consciousness returned very slowly. On Thursday, 30th, she recognized her mother, and sat up to have the bed made. On Friday, 31st, she answered to her own name, but appeared entirely unconscious of the past. As the congestive stage diminished, a large blister was applied to the left arm.

The symptoms have steadily improved up to the present time (Oct. 11th), and she is able to sit up half an hour three times a day. Dr. A. remarked that he did not bleed the patient, except by twelve

leeches, as her pulse and general appearance, in his judgment, did not require it. Perhaps the loss of blood might have given some temporary relief, but subsequent prostration was feared. She had never had epilepsy before, but it appeared from the statements of her friends that she was of nervous temperament, and subject to fainting turns, after excitement or fatigue.

Oct. 11th.—*Disease of the Heart in consequence of violent exertion in Running.*—Dr. Bowditch reported the case.

C. N., aged 16, male, student, reports that six years ago he was induced to run very fast, in order to arrive at the railroad station by the time the train should arrive. Whilst making this effort, he suddenly felt very ill, and stepped from the track, along which he was running, and fell, unconscious. He remained in this state for some minutes, and ever since he has been liable to similar attacks, occurring at irregular intervals, whenever he runs, or is excited. They are accompanied by palpitation. In ascending heights, also, they are liable to occur unless great care is taken. If he walks fast, he has pain in the cardiac region. He never has had violent orthopnœa at night. The extremities are liable to be cold, but are never œdematous. The digestive system well, excepting a little diarrhœa during the past summer. When at Dr. B.'s office, he looked like a stout, rosy-cheeked *little* boy, of bright mind. Pulse 86, strong and regular. No great dyspnœa. Has headache most of the time—six days out of seven. Accesses occur whenever he is not careful to avoid exciting causes, and in consequence of his care they have been less than during the past two years.

On examination, the heart presents twice the usual extent of dulness. A strong rasping, aortic murmur is heard over the aortic valves and above them. The respiratory murmur is obscure in the left breast, owing to the size of the heart, but otherwise is normal.

The evident diagnosis was an enormous hypertrophy of the heart, with aortic valvular disease and probable dilatation of the main trunk of the aorta.

Dr. Bowditch said that he had met with several such cases, in which, after a long and fatiguing race, dyspnœa had immediately supervened. Similar effects have been induced by extraordinary exertions in rowing. Writers on the heart had noticed the same effect. Dr. B. thought it incumbent on physicians to caution youths not to over exert themselves in boat-racing, to which the present tendency of fashion seems to lead. Dr. B. believed that in these cases, owing to the inordinate action of the heart, a partial rupture of the valves takes place. This causes the immediate dyspnœa and palpitation, and gradual hypertrophy.

Dr. Jackson suggested that in these cases there might be rupture of the chordæ tendineæ as well as of the valves.

Oct. 25th.—*Cancer of the Uterus and its Appendages.*—Specimen shown by Dr. Borland.

Mrs. M. B. æt. 40, entered the Channing-street Hospital for women, June 24th, 1858. She had been a widow for one year, and had had five children. She had an hereditary tendency to phthisis, but had always enjoyed good health until 14 months before her entrance, when

her child, a nursing infant, died; afterward she had a broken breast. Soon after this, she had pain in micturition, which had continued ever since. She also suffered from pain across the lower abdomen. Seven months before her entrance, she began to have a discharge from the vagina, at first white, then dark colored, afterward black. She had been unable to work for three months, and for the past month had been in bed.

At the time of entrance, she complained much of pain in micturition, and across the lower abdomen. Pulse 84. Examination by the speculum and finger revealed a hardened and ulcerated cervix uteri. The front of the vagina and meatus urinarius were similarly affected. There was also copious bloody dark-colored and very offensive discharge. She remained in the Hospital till Sept. 19th, when she died; the treatment being merely palliative, to overcome pain and the annoyance from the fœtor of the uterine and vaginal discharges.

*Sectio Cadaveris.*—The autopsy was made eighteen hours after death. No disease was found except in the pelvic cavity. The uterus and its appendages were wholly involved in one cancerous mass; about one third of the neck of the uterus being wholly gone. The interior of the uterus and vagina was blackened. Nodules of the disease were found at the neck of the bladder and studding the lower part of the abdomen.

Microscopical examination showed large irregular nucleated and somewhat caudate cells.

Oct. 25th.—*Poisoning by Phosphorus.* Case reported by Dr. Ainsworth.

In the month of August last, a middle-aged woman residing in Cross street, was found, one morning, dead in her bed. She was known to have been in her usual health the previous evening. Some one sleeping in an adjoining room, heard her vomiting in the night. The case was reported to the Registrar as cholera morbus, and the woman was buried. Some suspicious circumstances were discovered and the body was disinterred by order of a coroner, and the stomach, with a portion of the intestines, was given to Dr. C. T. Jackson for analysis. On examination, this organ was found considerably altered by decomposition. The mucous membrane, about the cardiac extremity, was covered with dark-red patches, as if ecchymosed, although the cadaveric change was so great as to leave this in doubt. Near the centre of the large curvature was a diffused red patch; and about the pyloric orifice the mucous membrane was of a deep cherry-red color, this extending into the duodenum, and appearing more intense in the three or four feet of intestine examined. The mucous membrane was much softened, probably by putrefaction. About an ounce and a half of fluid matter was taken from the stomach. An analysis for detecting arsenic was commenced by pouring the fluid from the stomach into a capsule, and adding hydro-chloric acid. When the fluid became clear, the capsule was placed over a lamp, and a few crystals of chlorate of potash were added. As evaporation proceeded, a blue flame was seen on the side of the capsule, which was found to be burning phosphorus. The liquid was then filtered, and a large quantity of that poison was deposited on the filter, amounting, with that obtained by other processes, to about 22 grains. About one grain of arsenic was sub-

sequently found, with a small quantity of peroxide of iron. It is probable that the poison was administered in the form of the "rat exterminator," which is hawked about the streets, and of which there are several kinds; one, composed of Phosphorus, ℥iv.; flour, lbs. iii.; honey, lbs. ii.; lard, lbs. ii.; Venetian red, ℥i. Another: Phosphorus, ʒiv.; meal and sugar, aa. ℥iv.; arsenic, Venetian red, ol. anisi, ———. Either of these compounds, from their sweet taste, could be easily given without detection. The paste used on common friction matches also contains a large amount of phosphorus, which can be readily dissolved. The fact that no substance has been found which acts as an antidote for phosphorus, taken with its almost universal distribution, renders it one of the most dangerous poisons; it is fatal in doses of from half a grain upwards. In small doses the poison is gradual in its operation, and is supposed to be an ingredient in the subtle poisons of the East. In larger doses the symptoms are similar to other irritant poisons. It is said, however, to give an aliaceous odor to the breath.

In an article by M. Chevalier and M. Poirier, on the danger of the indiscriminate use of phosphorus, a table is given of the cases of poisoning by this substance, from which the following is an extract:

"Whole number of deaths by phosphorus, from 1854 to 1858, 59. Criminal poisoning, 31; suicide, 18; accident, 10.

Oct. 25th.—*Membranous Croup; Tracheotomy; Re-formation of the Membrane; Death.* The following history of the case was furnished by Dr. Faulkner, the attending physician, and read by Dr. Gay.

Sunday, Oct. 31st, 10 o'clock, P.M. Lucy T. W., æt. 9, has had a cold for more than a week; has been in the house one day; became very hoarse yesterday; has some cough; says her throat is very sore; looks sick and anxious; the tongue is much coated and white. The uvula and palate appear swollen, the tonsils are enlarged; each has on its inner surface a circumscribed, oblong, white patch. There is no croupy breathing. Complains of "phlegm" in her throat. The sputa are very viscid. Pulse 120. At 6, P.M., has *decided* croupy symptoms, and labors very hard in her breathing. An emetic gave her most entire relief. She slept quietly as an infant for two hours. The sputa became somewhat bloody.

Monday, 11, A.M.—Very comfortable, considering her situation. Says "her throat is not sore now." The pulse and tongue were as yesterday, the throat less swollen, the tonsils about the same. Has coughed somewhat and been rather restless. There is no croupy breathing. The sputa are somewhat rusty. She still seems sick. Nothing can be determined by auscultation. 7, P.M.—Has had a good day; is easy and comfortable. Her general appearance is about the same, and she says that her throat is better.

Tuesday, 9, A.M.—Is breathing very badly; the countenance is somewhat livid. It is undoubtedly membranous croup. The sounds are very moist. An emetic gave no relief. Dover's powder was given, the throat cauterized with nitrate of silver and steamed. By 11 o'clock, two pieces of membrane were thrown up with but little relief. At 1, P.M., Dr. J. Ware saw her. The treatment was continued. At 2½, P.M., Dr. H. I. Bowditch saw her. She slept badly till 3½ o'clock, when, after a terrible paroxysm of coughing, she expectorated

a piece of membrane three inches long, and perfectly tubular for an inch and a half. The relief was immediate, and as great as on Sunday evening. Was there any membrane raised then? The pulse became 112. She is in fine spirits and says, "*I am well now, mother.*" After three hours of relief the breathing again became troubled. At 9, P.M., she is quite restless. Nitrate of silver affords no relief. The symptoms generally are worse. At 11½, P.M., I saw her in consultation with Dr. F. The patient had all the symptoms of confirmed croup. The cough was dry, feeble and hoarse, and at times seemed as if coming through a metallic tube. Occasionally she would place her hand upon the larynx, and whisper that something was there that she wanted to get away, and, after a severe paroxysm of coughing, would raise some long, firm pieces of membrane, and some small pieces that were soft and like porridge. A slight temporary relief would then be felt by the patient. At times the cough reminded me strongly of the crowing of a bantam cock.

The voice was in a whisper, and constantly becoming fainter. The swallowing was much easier than it had been. There was not any pain about the larynx, but rather an uncomfortable feeling. The respiration was hurried, labored and hoarse, and attended with great muscular exertion about the neck, chest and region of the shoulders. Inspiration was noisy. The expectoration was both viscid and membranous.

At times she was very restless, tossing her head about in different directions and positions.

There was but little fever, no fœtor of breath, nor glandular swelling about the neck.

As she had expectorated, within a few hours, a large quantity of membrane, it was thought prudent to wait a short time and give her a chance of expelling more.

At 5, A.M., on Wednesday, as all the symptoms were growing worse, and as the countenance was distressed, the eyes staring and wild, the nostrils dilated, and as there had been no expectoration for some time, it was decided to operate immediately.

*Tracheotomy*, at 5½, A.M. The patient was etherized, and the operation was performed with the assistance of Drs. Faulkner and Seaverns. When the trachea was opened, there was an expulsion of very viscid mucus, patches of membrane, and a bloody fluid. The mucous surface of the trachea was reddened, but there was no membrane seen. A short time after the tube was inserted, the relief was great and decided. She became perfectly calm and quiet. The respiration was easy and natural. The lungs acted and sounded well. The pulse was 120—before the operation it was 160. Respiration 28 per minute. She slept much and without restlessness. At times expelled through the tube large pieces of membrane. Saw her again between 4 and 5, P.M., in company with Dr. Ware. She then appeared very comfortable. The countenance was bright, the skin nearly natural. Pulse 120. Respiration remarkably quiet and easy, and when she was spoken to she smiled and nodded that she was much better. Nothing at all out of the way could be detected by auscultation. Every symptom seemed encouraging. She continued in this condition till 9, P.M., when her breathing became hurried and husky, and she was agitated. She rested rather better after taking a Dover's powder till midnight,

when all the croupy symptoms returned with increased severity, and she slowly failed and died at ten minutes before twelve, on Thursday, thirty hours after the operation. She died apparently very easy and without distress.

*Sectio Cadaveris*—at 5, P. M. of the same day. On removing the sternum, the lungs rose up above the level of the chest, fully distended with air, and without any sign of collapse at any part. They looked healthy, and were of a pinkish color. On drawing out the whole of the right lung, it was found of the same color throughout, except along the posterior dependent portions, where the color was purplish from the gravitation of the blood. There was crepitation throughout the lung. Frothy mucus escaped wherever a section was made. There was no appearance of pneumonia. No membrane was found except in the neighborhood of the main bronchus, just after its division from the trachea. Some of the smaller bronchial ramifications had the mucous membrane more or less injected. On removing the left lung, the same healthy color was seen, except along the dependent portions, and along the inferior portion of the upper lobe which was hepatized. The part inflamed was three inches long and an inch and a half wide. The rest of the lung crepitated. Most of the bronchial ramifications, even the minute ones particularly in the hepatized portion, were filled with a complete tubular membrane. The mucous surface beneath was much inflamed; the membrane separated very easily. The larynx and trachea to the bifurcation were then divided longitudinally along the posterior portion. At the operation, the fifth, sixth, seventh and eighth rings were incised. The greater portion of the membrane was formed after the operation; at any rate, that above the tube and around the opening was. Below the opening of the trachea made at the operation, the membrane was thick and tubular, extending, as mentioned above, below the bifurcation. It was easily separated from the mucous membrane throughout, and showed prominently on the posterior surface the longitudinal ribs and furrows which were moulded on the tracheal mucous membrane. The mucous membrane was thickened, and of a dark-red color.

Before the operation, air passed through the glottis; at the examination, the portion between the upper surface of the tube and the glottis was occupied by a *round, solid cord of membrane*, without the smallest canal through it. There was no air passing, and the membrane solidified into a solid cord in place of a tube, as would have resulted if there had been a passage of air.

It would be an interesting point to know when the membrane reformed after the separation. None was seen in the trachea at the time of the operation, and it will be remembered how easy and comfortable she was for sixteen hours. This cord was easily separated from the mucous membrane which was *white*, and not inflamed, bearing a strong contrast with the mucous membrane of the lower part of the trachea and bronchi.

The interior and ventricles of the larynx, and laryngeal surface of the epiglottis, were lined with strongly adherent membrane, more yellowish than the rest, at some points ragged and rough. At a hasty glance it might be said there was ulceration. However, the mucous membrane was entire, and without ulceration at any point. Patient had been a healthy child, was seldom sick, and never had any pulmonary disease.

Her little brother, five years old, died in February, 1852, of the same disease. His physician first saw him at noon, and at midnight he was dead.

Oct. 25th.—*Decidua thrown off in Menstruation.* Dr. Jackson showed two portions of membrane, each about as large as the finger nail. He had received them lately from Dr. Locke, of Nashua, N. H., with the following history of the case.

The patient was about 35 years of age, and had been several years married, but had never conceived, so far as she was aware. During the last year or more she had several times discharged, during menstruation, portions of membrane similar to those now shown, with moderate pain, but not enough to characterize the case as one of dysmenorrhœa. Dr. J. said, that having seen a well-marked decidua in perhaps three or four women who had died during menstruation, he regarded this as a case in which that membrane had been thrown off as it is in a common abortion. The specimen was afterward examined microscopically by Dr. Ellis, as one or two of the others had been, that were sent to him by Dr. Locke, and the case was settled beyond question.

Dr. J. was not aware, when he examined this specimen, that the occurrence of such a discharge during menstruation was a well-established fact in medical science; and certainly no specimen had ever been shown to the Society, nor any case ever before reported, so far as he knew. Dr. Putnam had, however, referred him to a French authority for the fact, which seemed to be known to other members of the Society. At the next meeting Dr. J. quoted from an article by Dr. Farre, in the last number of Todd's *Cyclopædia of Anatomy and Physiology*, which had been shown to him by Dr. Jeffries Wyman, and in which it is stated that the entire uterine lining is not infrequently discharged, and presents all the characteristics of a true decidual structure: much suffering attending the discharge, as might be expected, though the case above reported formed an exception.

Oct. 25th.—*Absence of the Mammary Secretion.* Dr. Page mentioned the case of a woman about 26 years old, and confined with her first child, who, on the fourth day, had a slight secretion of milk, which, however, disappeared in twelve hours after. The patient had had, within the past five years, twenty-six axillary abscesses. He questioned whether the latter could have had an effect in interfering with the peculiar function of the mammary gland. The breasts were remarkably large and well formed.

Nov. 8th.—*Communicability of Secondary Syphilis.* Dr. W. E. Townsend made further mention of the case reported by him in January last; that of a woman who, two years previously, had a venereal ulcer on the breast, followed by secondary syphilis, this being caused by the secretions from the nose of a child which she was nursing, dropping on a scratch at that place.

At that time some gentlemen expressed a doubt as to the character of this ulcer, thinking the probabilities were against its being of a syphilitic nature.

Two years and a half afterward, in August of this year, the same

woman was confined at her full time; the child at first looked well, but in the course of four weeks bullæ appeared on its ankles and feet, followed by inflammation of the mucous membrane of the nose and mouth, filling up those passages and obstructing the passage of air and nutriment, in consequence of which it died within six weeks of its birth.

This child died, undoubtedly, of hereditary syphilis, derived from its mother. The previous children of these parents have been, and are now, stout and healthy, and the father, to the best of Dr. T.'s knowledge and belief, never had any syphilitic disease. Similar cases have lately been reported by Langston Parker, Esq., in his lectures on Infantile Syphilis, in the *Lancet* for August, 1858.

Dr. Coale alluded to a similar case, reported in the *Medical Times and Gazette.*

Dr. Townsend said he regarded the question as to the communicability of secondary syphilis a very important one, as bearing on marriage, the physician being often asked as to its advisability, when the husband had had primary disease.

Dr. Putnam alluded to a case in which a patient who had had syphilis, had supposed himself cured before marriage: his wife gave birth to a child at seven months. There was no question as to the nature of the cause.

Dr. Abbot mentioned the opinion of Trousseau, that when the disease had once existed, there is no security against its re-appearance in the offspring. Several cases are on record where the disease is thus entailed. That there is no certainty as to its re-appearance is evident from another case mentioned by Trousseau, in which the patient, a cavalry officer, who had had syphilis several times, and was married, had children who exhibited no trace of the disease.

Dr. Townsend here briefly alluded to another case. Mrs. K., seven months after marriage, had a stillborn child. Two years after marriage, she had a second, likewise stillborn. Three years after, she had a third at full term, which lived for eight months, during five of which it had well-marked infantile syphilis. Four years after, she had a fourth, which has never been ill, but is still a feeble child, though its mother has always been, and is now, a hearty, robust woman.

About a year before marriage, her husband had syphilis, and was attended by a physician of this city, having a large experience in such cases. He supposed himself entirely cured, and presented no appearance of disease.

Dr. Hayward, Jr., in connection, reported the following case as tending to confirm the theory of the communicability of secondary syphilis.

In describing this case, the two first letters of the alphabet are used to indicate the ladies referred to, but with no reference, of course, to their real names.

December 17th, 1856.—Mrs. A. was confined in the country; she soon had fissures in the left nipple, and, her own baby not being strong enough to draw the breast well, she borrowed one nine weeks old from a poor family in the neighborhood. This child nursed her four times; the fissures in a few days became sores, and extended until they involved the whole nipple. During the first week in April, a dark red eruption appeared all over her body, arms and limbs; this

gradually assumed a copper color, and continued to spread until, by June, it involved the whole face. The infant had a similar eruption appearing about the same time.

July 18th, 1857.—Mrs. B., the mother of the above-mentioned patient, came to Boston to consult Dr. Hayward, concerning her daughter and grandchild, and, finding he had gone to Europe, she called upon Dr. Hayward, Jr., for advice. From the statement of the case given above, which she then made; from the fact that the infant who nursed Mrs. A. died in about two weeks after she was taken sick, covered with an eruption, and (as she expressed it) "rotten" with what the child's father said was smallpox; and from the circumstance that the child's father refused to allow any physician to attend upon his child, Dr. H. came to the conclusion that Mrs. A. and her infant were suffering from syphilis, and requested to have them brought to Boston that he might see them before prescribing. Mrs. B. said that her daughter was so mortified at her appearance, her whole face being covered with the eruption, that she positively refused to travel in any public conveyance. Dr. H. therefore prescribed for her hydriodate of potassa and decoction of sarsaparilla internally, and black wash, composed of a drachm of calomel to eight ounces of lime water, externally; the infant to drink the sarsaparilla, and have the black wash applied.

Aug. 14th.—Mrs. B. called again and reported her daughter and grandchild as much better, the eruption very much diminished: she was directed to continue the same treatment. Mrs. B. at that time supposed herself well.

Sept. 11th.—Dr. H. was sent for to see Mrs. A., who had come to Boston. She had, at that time, extensive traces of the copper-colored eruption on her face, and on various parts of her body, but this was dull except when exposed to changes of temperature, and Mrs. A. said that it was steadily fading away. She complained of much suffering in the left eye, and, on examination, it was found that she had a severe attack of iritis; the attack began in the right eye, and shifted to the left one. She had taken the hydriodate of potassa and sarsaparilla up to that time. She was then ordered to take a pill composed of one grain of calomel and one third of a grain of opium three times daily, till the gums were slightly affected, and the mercurial action was kept up moderately for several days longer. Under this treatment the iritis speedily improved, and when she left town, Sept. 25th, the eye was very much better, and it is believed that she has had no trouble with it since.

On the first or second visit to Mrs. A., at this time, Mrs. B. requested an examination of her throat, which she said was sore. Dr. H. examined it and found, to his surprise, that it presented every appearance of syphilitic sore throat. On questioning her, it was found that she had had the entire care of the sores on her daughter's breast, and had sometimes washed cloths which came from them, but that although she had had little cracks about her fingers repeatedly, she had never had any sores on her hands or arms until about two months and a half before this time. At that time, being about the middle or latter part of June, when the baby was six months old, Mrs. B. held it while the physician lanced an abscess on the right side of its neck; this discharged freely a greenish-colored matter, which ran over her left hand

and wrist. On the back of the wrist the skin was broken at the time, and in about a fortnight after the abscess was opened, a sore resembling a common boil was formed upon the back of the wrist where the abrasion had been. This suppurated, but, when it discharged, Mrs. B. noticed that there was no core to it, as in the case of a common boil; and, moreover, that the matter discharged from it was of a greenish color and resembled that which came from the infant's abscess. This sore on the back of the left wrist was followed by red and copper-colored spots, similar to those which Mrs. A. had had, and finally by sore throat. The sore throat yielded to fumigations of cinnabar and applications of nitrate of silver, and when that was well, she was ordered hydriodate of potassa and decoction of sarsaparilla, under which the copper-colored eruption slowly improved, though she has been at times troubled with it since, and is not quite free from it now. Dr. H. thinks that there was no loss of hair in Mrs. A.'s case, and is positive that there was none in Mrs. B.'s, except where the eruption was upon the scalp. In the course of the treatment, he saw and conversed freely with both Mr. A. and Mr. B., and from their appearance and character, and that of their wives, firmly believed that all this disease, misery and mortification arose from suckling a diseased child upon a fissured nipple. With this conviction, he remarked that it seemed to him of the utmost consequence, 1st, that before allowing any strange child to nurse a woman, the family physician should be consulted, which was not done in this case; and 2dly, that every physician should carefully examine the state of a child's health, and also inquire, as far as he is able to do so, into the character and health of its parents, before he allows it to nurse his patient.

Dr. H. J. Bigelow had expressed doubt as to the nature of the ulceration spoken of, and had perhaps been alluded to by Dr. Townsend. Without at all denying the possibility of the venereal lesion and specific secondary contagion in this case, he had felt the evidence of it insufficient to justify his own belief in it. The additional evidence now presented is, that a second child, born two years and a half after the first, presents, in four weeks, bullæ on the feet and "inflammation" of the buccal and nasal mucous membrane. These symptoms, if specific (which is not certain), must have been hereditary at this late period; and this fact of inheritance is adduced as evidence of the protracted existence of the lesion in the mother's constitution; which in its turn is relied on to show that such lesion was originally received in a secondary stage from a nursing child, and not as a primary lesion from a husband, or from any other source. While Dr. B. had great regard for the opinion of Dr. Townsend, and, in general, for the sort of conviction which results from a detailed and personal examination of evidence of any sort, he did not think that the case cited was one which could be relied on to convince other people. Primary lesion or *chancre* is *always* inoculable in an unsyphilized subject. Secondary and constitutional lesion is well known to be *almost never* so. The present discussion is to the point whether secondary and tertiary syphilitic disease is *ever, in exceptional cases,* communicable by contact or inoculation. Ricord, after years of honest and careful experiment, decided that it was not. Subsequent experimenters have since thought that in rare cases it may be, and it seems actually probable that it is. But as the comparative ignorance which prevailed in

respect to the whole subject of syphilis, before the masterly elucidation of Ricord, was due to the imperfect analysis of previous evidence, justice to the labors of that observer demands a rigorous scrutiny of any case adduced in contradiction of his results. Grant a venereal eruption to be identified as such (which is often difficult, sometimes impossible), the question of its origin is then between a rare contagion from a previous secondary or tertiary eruption in another person, and its regular, every day sequence from a primary sore, persistently denied or honestly ignored, by the individual last affected. No other medical subject presents, like this, the sacrifice of character and of social relations as obstacles to its elucidation, and evidence should be weighed accordingly.

Dr. B. believed that constitutional syphilis was, on all the evidence, contagious as well as hereditary, but was rarely so; and that the protracted contact of the nursing child was the more frequent condition of this contagion. Of course, no healthy woman should knowingly nurse a syphilitic child, and *vice versa*. As to the question of marriage, he thought that the lapse of a year from the *complete disappearance*, under proper treatment, of light constitutional symptoms, and of two or three years, more or less, in severer cases, was as strong a guarantee of immunity as posterity had a right to expect, or at any rate as they generally received.

Dr. Lyman alluded to the change of opinion in England and on the Continent, upon this subject; also to the fact that the English journals contain frequent reports of cases, which give direct evidence of the communicability of secondary disease.

Dr. Durkee considered that the preponderance of medical opinion is in favor of the communicability of secondary symptoms. The singular doctrine, advanced some years since, by Ricord—that of all venereal affections, indurated chancre, alone, furnished inoculable matter, had been the occasion of awakening other distinguished observers to the general subject of contagion arising from syphilitic manifestations. The facts furnished by such men as Vidal, Velpeau, Trousseau and Cazenave, of France; by Wilson and Langston Parker, of London; by Professor Porter, of the Royal College of Surgeons of Ireland; by Sigmund and Hebra, of Vienna, and many other high authorities—had now become quite numerous, and they were in direct opposition to the views of Ricord. These facts are constantly accumulating, and the most respectable medical journals teem with well-authenticated instances of infection derived from secondary lesions. Two cases of this kind, related by Professor Bennett, of Edinburgh, are entitled to our remembrance, whatever theory we may entertain on the subject. They are as follows:—A child of respectable parents was brought to Bennett for his opinion, whether an eruption, which it had, was, or was not, venereal. Bennett decided that it was. The family physician maintained that it was not. The child was put under the care of two wet nurses, both of whom, soon after having had the care of it, became affected with venereal ulcers about the nipples, and other well-marked syphilitic symptoms. Bennett had given his opinion that it was unsafe for the child to be "wet-nursed." Both nurses brought an action for damages against the physician who had caused the diseased infant to be under their care, and both recovered damages.

In view of such facts, Dr. D. asked if any member of this Society

would feel justified in giving his professional opinion that a syphilitic infant might safely be committed to the custody of a healthy wet nurse; or, to reverse the circumstances, and suppose that a healthy nursling was in want of a wet nurse, and a woman with a large breast of milk should desire the situation, but, upon examination, should be found to have secondary syphilis: would any gentleman present be inclined to encourage the friends of the child to commit it to the fostering care of such a woman?

Dr. D. remarked that in his own practice he had seen several cases of secondary syphilis in both sexes, where no evidence, whatever, of primary lesion existed. He considered that the proof, as to the communicability of secondary lesions, was as reliable as that relating to the contagiousness of chancre. Once, he was a believer in Ricord's theory. But facts observed in his own practice, as well as those adduced by the most trustworthy men from all quarters of the medical world, had fully convinced him that Ricord was not sound on this point. He is prëeminently entitled to praise for the great scientific advancement he has made in regard to the pathology and treatment of venereal affections; but he is not infallible.

Dr. Strong remarked that he did not consider this a question upon which the profession is at present ready to decide. Observations were not as yet sufficiently numerous to form the basis of a correct opinion. He had for a long time differed from Ricord, having seen many cases in which the evidence of the communicability of secondary syphilis was undoubted; but was yet of the opinion, that the time had not arrived to establish a pathological conclusion.

Dr. Jacob Bigelow remarked that he had been much interested in the discussion. There was one point to which he would allude, that might tend to reconcile the differences in the various reports upon this subject; and this is the change of character that diseases sometimes undergo in different periods. Cholera, for example, was formerly a tropical disease; it being only about thirty years since it spread toward the north. Plague once visited Great Britain, and various parts of the Continent, committing terrible ravages; now, it is not known in those countries. Yellow fever was supposed, thirty years ago, to be non-contagious; while, at present, serious doubts are entertained whether it be not sometimes contagious. Typhus fever seems to be at some times contagious, at others not at all so. Syphilis had undergone several changes in its character within a half century. At one time, the doctrine of Hunter was well established. Not long after, the chancre was found to vary so much, as to render it necessary to define what was meant by the *Hunterian* chancre: and it afterward became so varied in character and appearance, as to make it doubtful whether there were not as much of qualified or spurious syphilis as of the true disease. We know that the contagiousness of smallpox differs in different years. Is it not within the bounds of possibility that syphilis may, under different circumstances of epidemic predisposition, be more communicable at one time than at another?

Dr. Strong was not inclined to regard these apparent differences in the communicability of diseases, as owing to any change in their character, but rather to faulty observation, or perhaps to a difference in the predisposition of patients.

Nov. 22d.—*Hydrophobia.* Case reported by Dr. TOWNSEND.

A. N., æt 37, teamster, a native of New Hampshire. The patient is a stout, healthy-looking man, working out of doors in all weather. He has been in the habit of drinking three glasses of liquor during the day, but was always regular, and never drank to excess. Was always very lively and good natured, and a general favorite among his acquaintances. Was never low spirited.

Five months ago, he was bitten by a dog, in which no suspicion of madness existed, but which was immediately killed. He was bitten in the left hand, the teeth meeting in the soft parts between the thumb and forefinger. According to the patient, the wound was cauterized and soon healed up, leaving no scar.

After he was bitten, those who knew him best observed a change in his manner; he was less good natured, and spoke sharply to his wife, which he had never done before, and she says she thought something was troubling his mind. Since he was taken sick, he confessed to his wife that the thought that sooner or later the disease must attack him, had continually haunted him, and that often at night the cold sweat had poured from him, when he feared that he might bite his wife or children.

Oct. 24th.—On Sunday he went to ride, and before he returned home he was seized with a violent pain in the bowels, for which he drank two glasses of brandy. On his return, as the pain continued, he took two Indian vegetable pills. On going to the sink to wash his hands, a sudden chill or tremor ran over him, and he called his wife to see how strangely he was affected. He said he felt as though it was impossible for him to touch the water, although he experienced no disagreeable sensations, nor feared any, yet something prevented him and he did not persevere in the attempt. He tried to drink water, but experienced the same sensations: after a minute, however, he suddenly jerked the glass to his mouth and then drank without difficulty. He slept tolerably well.

On the day following, he complained of not feeling well, and Dr. Richardson, of Watertown, was called to see him. He advised a cathartic, and care in eating and exposure to cold.

When he attempted to drink, a shudder and catching of the breath seized him, such as one experiences when the first drops of a shower bath touch him. With determination he could overcome these sensations, and they annoyed him so little that he voluntarily induced them for the gratification and curiosity of his friends. He was more nervous than usual, and quite irritable. The medicine operated toward night. He slept but little, had no pain, but seemed quite excited.

On Tuesday, the next day, attempts to drink were followed by much the same emotions as those above described, but they were more severe. The spasm was induced on the first sight of the water: the eyes were fixed on it, and it seemed as if they would start from their sockets. There was also a chewing motion excited in the jaws. He could also, with great difficulty, and after struggling about two minutes, carry the glass, with a spasmodic action, to the mouth, and, shutting the teeth upon it, take two or three swallows, after which his hands would fall powerless to his side, and he seemed very much prostrated. Drinks of all kinds produced the same effects. He could eat bread without difficulty, but bread on which there was butter affected

him more than water, and he begged that no more butter might be given him. He was unable, also, to take gruel. He complained of strangury, and uva ursi and nitrous spirits of ether were given, which relieved him. The sight and sound of his own water, during micturition, did not excite him.

He was aware, or confidently believed, that his disease was hydrophobia; but he spoke of it without emotion, and seemed as though he did not realize what he said. Did not sleep at all, but was restless and wandering all night.

On Wednesday, Oct. 27th, the symptoms did not differ much from those of the day before. Could not drink without great difficulty. It was noticed that a current of cold air produced a similar, but less violent spasm than that induced by the sight of fluids. At times, and especially after these spasms, a complete prostration was observed, and he was unable to raise his hand to his mouth. Throughout the day and night he was continually affected with priapism, and it was impossible for him to move, or to be moved, without an emission of semen. It was accompanied with no pleasurable sensations, and sometimes occurred without his cognizance. He slept none during the night, and was at times quite delirious. Nothing like convulsions were observed.

On the 28th, at 10 o'clock, he was brought to the hospital, and walked from the carriage without assistance. He was very much excited and restless; all his motions were quick and almost spasmodic. His eyes were on the alert, and no action of the bystanders escaped him. There was a constant chewing motion in the jaws, and his mouth seemed uncomfortable from a collection of viscid mucus. He answered questions willingly and quite rationally, but with great quickness and eagerness. He was extremely suspicious, and said the doctors only wanted to cut him and experiment on him. A glass of water was brought him, to see what effect it would have on him. He heard it called for, and although he objected to its being brought, was not much affected till it was offered him, when his teeth closed spasmodically and a shudder ran over him. He objected to trying to drink; it was removed, when he became as he had been before. Soon after, the nurse prevailed upon him to drink some port wine, and in it were dissolved two grains of morphine. She said he took the glass and drank without any emotion; it did not seem to affect him at all. A current of air did not produce a spasm. No priapism or emission of semen was noticed. Pulse 125, quite full and strong. Tongue natural, but covered with thick mucus. Said his appetite was good.

Dr. Townsend ordered an application of ice to the spine, and the room to be darkened. He allowed the ice to be applied, but said it was not good ice, as it was not cold.

At 2 o'clock he was much more excited, and quite delirious. He would listen to questions and begin to answer them, but seemed to forget what he wished to say before the sentence was completed.

He took some more wine with the same dose of morphine (2 grs.), and drank naturally.

The morphine did not seem to affect him at all. Ice was again applied to the spine, and he again complained that it was not cold. Water was poured from one vessel into another, but he did not seem to notice it. At 4½ o'clock he got out of bed, and got his neck-kerchief,

with which he contemplated suicide. The nature of the delirium seemed to have changed; at this time he was as much excited as before, but his suspicions had left him. He allowed the straps to be put on him, and did not notice what was going on about him; but kept up a rambling soliloquy about his horses, employer, &c. Pulse quick and feeble.

Delirium increased in violence till 5½ o'clock, when he was shouting so loud that he could be heard at some distance from the building, although the windows and doors were shut. Ether was administered till he was quieted, but in five minutes after it was removed he was as violent as before. Ether was again given, and he was kept partially under its influence till 10 o'clock. Soon after this, he became comatose, and continued so till 11½, when he died. Not more than four ounces of ether were used. A constant and remarkably rapid failure of the pulse was observed from 12 M. till he died.

*Sectio Cadaveris.*—Oct. 30th, a careful examination was made, by Dr. Ellis, of the spinal cord, brain, viscera and larynx, but nothing abnormal was found.

Nov. 22d.—*Poisoning by Arsenic; Conversion of the Arsenic into Sulphide of Arsenic by Decomposition of the Membrane of the Stomach.* Dr. Charles T. Jackson presented to the Society a show-bottle containing the stomach and duodenum of Mrs. Rose, of Charlestown, who died from the effects of arsenic, in February, 1850.

In this bottle was a rich orpiment yellow mass, which was produced by the spontaneous changes which had taken place in the organs charged with arsenious acid, in which arsenious acid had become converted into the yellow sulphide of arsenic, the sulphur having come from the membranes of the stomach and intestine. Dr. Jackson remarked that Mr. Rose, the husband of this woman, had died of a disorder supposed at the time to be Asiatic cholera, but circumstances raised the suspicion of his having been poisoned. He was buried in July of the year previous to the death of Mrs. Rose. By order of the coroner, the body was disinterred, under the direction of Dr. Jacob Hayes, of Charlestown, and the stomach and its contents were placed in Dr. Jackson's hands for analysis. An abundance of arsenic was found, in the state of the yellow sulphide, which covered the whole surface of the mucous membrane of the stomach and filled the small intestines.

In order to demonstrate the fact that sulphide of arsenic will be produced by the decomposition of organs charged with arsenious acid, Dr. Jackson had, after proving the presence of that acid in Mrs. Rose's stomach, kept it until the sulphide was formed as it now appears. In these two cases of poisoning, no legal trial took place; and the suspected party, against whom the Grand Jury found a bill, was discharged by *nol. pros.*

Dr. Jackson also exhibited to the Society a quantity of phosphorus (about twenty grains in weight), which he obtained from the stomach of Debora O. Connel, deceased, and who was poisoned, undoubtedly, with a rat exterminator containing phosphorus, arsenic, lard, honey and Venetian red. It is not yet known whether this death was by suicide, or whether it was a case of murder. The latter is strongly suspected to be the case, as this girl had a large amount ($150) in money the evening before her death, and no money was found after-

ward. As yet, the officers of justice have not discovered any person implicated in the crime. This case has already been reported. See page 279.

Nov. 22d.—*Fibroid and Fatty Degeneration of the Placenta.*—Dr. Ellis exhibited the placenta and described the lesion. He also showed portions of the diseased tissue, beneath the microscope.

In the substance of the placenta were a number of firm, yellowish-white masses, from one to two inches in diameter. These differed somewhat in their appearance. The cut surface was in parts smooth, but elsewhere rough, as from the change of the individual villosities.

On microscopic examination and comparison of the diseased with the healthy portions of the placenta, the former were found to be non-vascular, and the villosities, where seen, had a more or less fibroid appearance, and contained granular matter, or minute fat globules.

The change is similar to that noticed in a number of placentæ examined during the last three or four years. In previous instances it has been the apparent cause of abortion at an early period of pregnancy, and was sometimes associated with apoplectic effusions in various parts of the organ.

In the *Memoirs of the Society of Biology* of Paris, for 1854, Robin gives an excellent description of the lesion. It has been spoken of as "induration of the placenta," "encephaloid," "scirrhous, cancerous or tubercular degeneration," and lately as "fatty degeneration." The last is the only term really applicable, and this expresses but a part of the truth; there is also a fibroid obliteration of the villosities. This obliteration is the same as that which occurs on a normal change in the villosities of the chorion, when their function ceases and the placenta becomes the organ of hæmatosis.

As the deposition of fat is very frequently, if not constantly, met with, the term "fibroid and fatty degeneration" appears to be the most appropriate, expressing, as it does, the exact condition of the diseased parts.

As apoplexy is often found associated with the above disease, it may be questioned whether there be not some connection between them. The appearance of certain portions, in which the individual villosities are evidently affected, is opposed to this idea, and the microscope detects nothing in favor of their hæmorrhagic origin.

Dr. Morland gave the following account of the patient, and of the circumstances of her pregnancies and labors.

"The specimen is interesting, from the fact that the placenta has been twice diseased in this patient; and the two births premature. The inference is, that the abnormal condition hastened the labor in each instance. The woman has had (between the other two) one healthy child, with nothing abnormal accompanying—although during that pregnancy, and about two weeks before her time, she was threatened with labor—the pains and bearing-down efforts subsiding under full doses of laudanum and rest in bed.

"Mrs. R———, the patient, is 21 years old; rather delicate, yet usually well; before marriage, she was always so. Since marriage, both during her pregnancies, and at other times, she has had very troublesome varicose veins of the legs; and, in 1856, open ulcers therefrom.

"*First Labor.*—March 25th, 1856. The patient was then 18 years old, and was confined at *seven months*—possibly, a little over that period. The labor was very easy and rapid—only two hours; the *breech* presenting. The child was dead, and decomposition was so far advanced that the skin slipped from the limbs on handling them; the anus was widely open, and meconium issued freely.

"The placenta and cord were both diseased; the former was affected with knobbed induration, in spots; and its margin had the 'coriaceous' feel, spoken of by Rokitansky. The umbilical vein was varicose, and the entire cord tortuous, presenting a series of tongue-like appendages throughout nearly its whole length. These were harder than the cord itself—that is, than its straighter portion. The latter was of smaller calibre than is usual, and flabby. The mother recovered rapidly, but has not been so well since, as she was before marriage. I could not ascertain that the husband was, or had been, syphilitically diseased.

"*Second Labor.*—April 19, 1857. This labor was also very easy. It was natural in all respects; there was nothing abnormal about the fœtus, placenta, or cord, and the patient recovered well. It has already been mentioned that a false alarm occurred, about a fortnight before her full time. The child is now living and well.

"*Third Labor.*—October 24th, 1858; and that which afforded the specimen shown. The child was probably about eight months, possibly somewhat less. It was very lively, and cried well at birth. The mother stated that she saw a very slight indication of menstruation on the 17th of March, 1858, but so little, that it could hardly be seen; it almost immediately ceased—in 'about an hour,' according to her. It is therefore not unlikely that she might then have been nearly a month pregnant.

"The child was seventeen inches in length, and a female. The labor was very easy, and particularly rapid (as the other abnormal labor was); the presentation was natural—the occiput looking to the pubis; the cord was twice, and tightly, coiled around the child's neck. The placenta was freely detached and easily withdrawn. On first touching it, I perceived that it was diseased, feeling two or three strongly indurated spots. The cord was rather slender and flabby.

"The patient, as in her other labors, has done well, and has sufficient milk. The child continues lively and well."

Nov. 22d.—*Double Femoral Hernia; Strangulation of the Right Side; Operation. Erysipelas and Fæcal Fistula; Internal Strangulation; Recovery.* Case reported by Dr. Gay.

Mrs. G———, aged 58, has had an irreducible femoral hernia of the *left* side for eight or ten years. Never had any pain in it. Bowels have generally been costive.

Saw her in consultation with Dr. Windship, March 14th, 1858. She then had a strangulated *right* femoral hernia of the size of a hen's egg. The strangulation had existed for forty-eight hours. Operation at 2, P. M., in presence of Drs. Lewis, Windship, Clark and Dickinson.

On opening the sac, two portions of the omentum, four inches long, were found strongly adherent at the upper part of the sac, and purplish. Beneath the omentum was a fold of the intestine, of a brownish-black color, tightly strangulated. There was considerable difficulty

in separating and returning the omentum after the stricture was divided. The left hernia was also reduced. Small doses of morphia were directed, p. r. n. She passed a very comfortable night, and for three or four days there was every indication that the wound would unite by the first intention. On the fourth day there was an easy dejection from an enema. The pulse had not been above 84. At this time there was a swelling in the left femoral region, as if the intestine had come down again, with redness and tenderness of the skin. The next day there was a decided erysipelas, with hardness of the parts beneath the skin. There was also a redness about the wound of the operation, the lips of which were in part separated and discharging pus. There was but little constitutional disturbance. Eight days after the operation, the patient, feeling as if she might have a dejection, got out of bed of her own accord, strained hard and ineffectually, and returned to bed. The next morning, a few drops of liquid fæces were seen issuing from the wound.

On the tenth day, a slough was observed in the wound, which was removed by the forceps. It was undoubtedly omentum, and three inches long. There was an immediate free discharge of fæces and flatus from the wound. The next day another small slough was removed. The erysipelas continued to increase. Fluctuation being detected on the left side, the abscess was opened on the 28th, and was followed by a free discharge of pus. On the next day, the 29th, fifteen days from the operation and six days after the first appearance of fæces in the wound, the discharge of fæces and flatus from the fistula suddenly stopped. She was attacked with vomiting. An enema was given, and it was followed by a free fæcal discharge. The vomiting and retching increased, with occasional hiccough. The abdomen was tympanitic, but not tender on percussion, the countenance anxious, the pulse rapid, the skin hot and dry, the tongue had a brownish white coat, the abdominal pain was severe; in fact, there was every indication of some internal strangulation. Opium and ether were freely given. The liquid ejected from the stomach had a strong fæcal odor. April 4th, an enema of three quarts of spearmint tea was thrown very cautiously and slowly into the rectum, and a slight quantity of fæces came away. The patient is in a very feeble condition, and there is every reason to suppose that she can live but a short time. A red blush was also noticed about the left eye. April 5th, there is a decided erysipelas of both eyelids, extending downward on to the cheek. This morning, there was again a free discharge of fæces and flatus from the wound, after a complete closure of about eight days. The vomiting, tympanitis and pain immediately disappeared. Quinia and stimulants were given freely. April 7th, the erysipelas has reached the nose. The wound of the left groin is slowly closing. There has been no appearance of an hernia.

April 9th.—Erysipelas has extended to the right cheek and forehead. The next day, an abscess of the left lower lid was open; and two days after, one in the upper lid. She began to improve, and on the 15th ate a fig, of her own accord. The next day, after an enema, she had a profuse discharge from the anus of fæces and flatus, which might be called the only one since the 29th of March. The erysipelas has nearly subsided. The fistula in the groin was perfectly dry to-day. On the 17th, some of the fig seeds passed by the anus. This was the

first time that anything was known to have passed through the whole tract of the intestine. On the 18th, there was a slight watery discharge, with some pus, from the fistula. April 19th, she ate another fig yesterday, contrary to orders, and this morning some of the seeds were found in and around the fistula, but nothing of a fæcal smell. She continued to gradually improve. On the 25th and 26th, a membranous-looking slough was seen in the dejection. The longest was two inches long, but so far decomposed that it was impossible to tell what it was.

She improved very fast, and on May 21st, when I last saw her, the fistula had been closed for three weeks, and in its place a firm corrugated depression was seen. The bowels have become very regular, and without medicine. The appetite is also good. At the present she is better than she has been for a number of years.

Nov. 22d.—*Tumor of the Choroid; Melanosis.* Dr. Bethune reported the case.

The patient, Mrs. C., was 46 years old; her health had formerly been good, but for the last year she had become feeble: within the last six weeks, however, she had grown stronger. Three years ago, she began to have pain in the left eye, and failure of vision. This last has increased till all sight had left this eye. The right eye had of late begun to feel weak and uneasy. On examination, the right eye was normal in appearance. The left eye was not injected, the cornea was clear, the pupil of medium size, irregular, and nearly filled by an opaque cataract. Above, and to the inside of the cornea, a single dark-blue tumor was seen, of the size of half a marble. This was removed by the bistoury and forceps, and found to be dark brown in color, and of a soft solid consistence.

Examined by Dr. Ellis, the mass was quite soft, but did not have the appearance of encephaloid. Under the microscope, there was seen a large amount of pigment in the form of minute globules, or agglomeration of the same, as if cells were filled with them. There were, perhaps, a few small nuclei, with small nucleoli, but these were very indistinct.

The wound healed kindly, and at the end of a fortnight an enlargement appeared above the cicatrix. The eye was now removed. It showed the same microscopical appearances as those before observed. Three days afterward, while the patient was stooping, a gush of blood took place from the part, about half a pint being lost. Cold and compresses were applied, but oozing still continued. On removing the coagula, a bleeding artery revealed itself. The hæmorrhage was checked by dividing the artery. Dr. B. questioned whether this could have had any influence on the character of the disease.

Since the above report, dropsical symptoms have appeared, suggesting the existence of malignant abdominal disease.

Nov. 22d.—*Hysteria in the Male.* Dr. Coale related a case of hysteria, the subject of which was a gentleman of middle age, of strong, muscular build, of atra-bilious temperament, regular in his habits, moderate in diet, and generally enjoying very good health. For ten days before the attack, he had been much annoyed at a circumstance of no great import, but which made a stronger impression upon his

nervous system, and produced more irritation, than he could account for. The day of the attack he had eaten a very slight breakfast, and not much dinner, taking this late, as was his custom. Two hours after dinner, while at cards, he drank two or three small glasses of brandy and water. Still feeling uncomfortable, he went home, and just before midnight was seized with the attack for which Dr. C. was called to him a half hour after. Dr. C. found him in bed, in violent convulsions of laughter, and at the same time shrieking out with the pain it caused. The paroxysms lasted fully three minutes, and the interval between them was from five to ten. The pulse was 70, the mind perfectly clear, and muscular movements in the intervals perfectly under control. These evidences did not permit the suspicion that undue use of stimulants had anything to do with the case. Before Dr. C.'s arrival, the stomach had been thoroughly emptied by warm water. Spiritus Mindereri was administered freely, and at short intervals, but the urgent treatment of the moment was rousing the patient, distracting his attention, occupying his thoughts by violent contradiction, and demonstrating to him his own powers of self-control if properly exerted. Getting him out of bed, when the attack came on he was not permitted to lie down; he was urged to walk around the room, and by question and proposition his mind was kept occupied. Under the influence of this treatment, the attacks became less violent and the intervals longer—though in both particulars relapse occurred if care was lessened. At the end of three quarters of an hour, the patient was fully assured he had himself perfectly under control, and Dr. C. left him. The next day the patient was perfectly well. He mentioned he had had a similar attack, ten years before, in Italy, the only difference being that then it took the form of shrieking, and there seemed to be no cause for it in any appreciable modification of the nervous system.

Dr. Williams mentioned a case recently seen by him, where hysterical symptoms were strongly marked in a young man of 25. During four years he professed to have suffered from extreme intolerance of light, and had confined himself to a dark room, appealing to the sympathies of those about him for the means of subsistence. Although he declared himself keenly sensitive to the least amount of light, he bore a sudden considerable augmentation of it without flinching, when his attention was otherwise directed. His narrative of his symptoms had evidently been made up from information he had gathered from various physicians and charlatans under whose care he had been, and was composed of very incongruous details.

Nov. 22d.—*The Ductus Venosus.*—Dr. Jackson said that in all of the modern text-books on anatomy, as far as he had consulted them, with one exception, this vessel is described as terminating in the vena cava, and in some of them it is so figured; the figures, which have the appearance of coarse diagrams, representing the opening at some distance below the opening of the vena cava into the auricle. Many years ago he had been struck with the error of this statement, as applied to his own dissections; and he had never yet seen it confirmed, although he had often examined this point. The ductus venosus terminates, so far as Dr. J. has observed, in one of the hepatic veins, near, and sometimes close to the opening of this last into the vena cava.

Mr. John Bell's work on anatomy, published in 1802, would, perhaps, hardly be considered as a modern text-book, but this is the one above referred to. He figures the ductus venosus as opening into one of the hepatic veins, and further from the vena cava than Dr. J. has found it to open. In the text, there is some looseness of description: he says that the vessel in question "joins the largest of the hepatic veins, and along with it, goes directly into the right auricle of the heart;" and on the following page, he says that the ductus venosus goes to the back part of the liver and "enters the heart." Dr. Hodges, with whom Dr. J. had had some conversation upon the subject, recently, had since then examined several authorities, and called his attention to Cazeaux's work on midwifery, in which it is stated that the ductus venosus "goes sometimes to the vena cava inferior above the diaphragm, though at others it joins one of the hepatic veins" (Philadelphia edition). Dr. H. further remarked that in the very recent and excellent work on anatomy by Mr. Gray, the ductus venosus is said to open into the vena cava.

[Since the above report to the Society, Dr. J. has had shown to him by Dr. H., a small volume by Mr. John Struthers, of Edinburgh (*Anatomical and Physiological Observations*, 1854), which had been received within a day or two from Europe, and in which it is stated that the ductus venosus "enters not the vena cava but the left hepatic vein, about a quarter of an inch before the latter ends in the vena cava." Dr. Dalton, in his work on physiology, just published, also speaks of the ductus venosus as terminating in the hepatic vein.]

It is a question of very little if any physiological importance whether the ductus venosus opens into one of the hepatic veins near to the vena cava, or directly into the vena cava itself; though the flow into the heart of the purified blood that passes through the ductus venosus might be somewhat impeded if this vessel really opened into the vena cava at some distance from the auricle, as figured in one of the most common of all text-books (*Wilson's*). Dr. J. said that he intended merely to remark upon the anatomical fact, and upon the present case as one of too many in which errors are perpetuated in the text-books of medical science. He was led at this present time to make the above remarks from having had Wilson's work shown to him by a student, after he had been giving what he believed to be a correct description of the ductus venosus; and from finding that some of his friends, who have paid particular attention to anatomy, entertained the idea, in regard to this vessel, that is so generally taught in the text-books.

Dr. J. illustrated his remarks by an injected specimen from the Society's Cabinet, and said that four or five others, equally satisfactory, might have been shown.

Nov. 22d.—*Deep-seated Wen of the Neck.*—Dr. H. J. Bigelow showed the specimen, which was the fifth case he had observed, of wen situated deep among the muscles of the lower jaw, almost in contact with the mucous membrane of the floor of the mouth. He had removed them all. The present tumor was about the size of a hen's egg, lined with perfect epithelium, which resembled in its tenuity and smoothness the skin of the scrotum.

He called attention to one or two small, shining, red patches, occu-

pying intervals of the epithelial surface. These, under the microscope, presented a fibrous, and not epithelial, structure. Wherever he had found, in these or other common encysted tumors, the contents to prove meliceric, and not ætheromatous, sebaceous and not watery, he had uniformly observed the presence of these patches, which are doubtless concerned in the secretion of the greasy mass.

Dec. 7th.—*Congenital Fissure of the Sternum.*—A special meeting of the Society was called for this evening, to see and examine a remarkable case of fissure of the sternum. The subject of this rare anomaly is M. Groux, a native of Hamburg, who has within a few years past visited many of the capitals of Europe, and presented himself before the principal medical societies both upon the continent and in England. He has lately arrived in this country, and to his zealous interest in the cause of science are we indebted for the opportunity now afforded of examining the singular fault of conformation exhibited in his case.

In view of the short stay of M. Groux at this his first visit to Boston, in consequence of which it is impossible that so thorough an examination of the case can be afforded as is desirable, it was, on motion of Dr. James Jackson, voted, that a committee be appointed to make arrangements with M. G. for a repetition of his visit. The chair appointed Drs. Upham, Hayward, Jr., and Borland. Another committee was subsequently appointed by the Society to make a careful investigation of this case, and report thereon at a future meeting. This committee consists of Drs. J. B. S. Jackson, O. W. Holmes, and H. I. Bowditch. After some prefatory remarks by Dr. James Jackson, in which he alluded to the disinterestedness and zeal of M. Groux, as evinced by his careful study of his own case, and by the trouble and expense incurred in visiting foreign countries for the benefit of science, the following brief biographical sketch was presented by Dr. Upham.

M. Eugene A. Groux was born in Hamburg on the 10th of January, 1831. His father was also a native of Hamburg; his mother, of Bordeaux, in France. The congenital fissure of the sternum, which forms his anatomical peculiarity, though known, of course, at birth, does not seem to have excited any marked attention. There is a tradition of a consultation being held as to whether a swathe or bandage should not be applied to his chest, to bring the divided sternum into closer apposition. Fortunately for himself, and for science, perhaps, he was left for nature to treat. At the age of about three years, he was subjected to examination in a private medical society at Hamburg, of which he thinks he has some recollection still. Being otherwise of feeble and delicate organization, when five years old he was placed at school in the country, where he remained till the age of 12. He then returned to his native city, and joined a school of higher grade for some years more. When 15 years of age, he went to London, and was employed as an assistant in business with his uncle, a soap-boiler by trade. In this capacity he remained for a period of a year and six months, when he was seized with a severe attack of cholera, which was then epidemic in England. In this illness he was attended by Dr. Beneke, physician to a German Hospital in London, to whom he communicated the fact of his singular malformation. Dr. B. was a man to understand and appreciate the value of the case. On his recovery, through the instrumentality of Dr. B. he was presented to most of the eminent physicians and surgeons of London, and various reports of his case were at that time published in the English journals. He remained in London some ten or twelve weeks after this attack, when he returned to Hamburg, and entered a well-known mercantile house in that city. This is an establishment corresponding with the wholesale drug and medicine stores with us. His duty was here, among

other things, to assist in the analyzation of drugs, which led to more or less familiarity with chemistry and pharmacy. In this employment he remained for two years, more or less, when he was attacked with pleurisy of the right side, accompanied by an inconsiderable amount of hæmoptysis. He attributes this attack to breathing the fumes of phosphorus. He was thus compelled to leave the establishment, and, finding himself, after a somewhat tedious convalescence, in a feeble state, remained about home, employing his time, by the advice of his physicians, in out-door exercises and sports.

It was now, being advised to travel for the benefit of his health, that he formed the determination to exhibit his case to the medical world. He therefore set out on his tour in the latter part of the year 1851, since which time he has visited nearly all the large towns and cities in Europe—has been presented to the various medical and learned societies, and has also subjected himself for private examination to numberless physicians and medical men of eminence in Germany, Holland, Sweden, Russia, Spain, France and the Kingdom of Great Britain.

After travelling a couple of years, he resolved to enter systematically on the study of anatomy and physiology; and for this purpose connected himself with the schools and hospitals at Vienna, and subsequently in Paris, where he shared as a student the facilities so abundantly afforded in those capitals. In 1856, he remained for about six months in Russia, whither he went at the call of the Government, preferred through Dr. Zdekauer, his time being there divided in the cities of Dorpat, St. Petersburgh and Moscow. Some four or five weeks ago he arrived in New York, with the purpose of making the tour of this country.

The case of M. Groux, it would appear, is, in most respects, unique. Two cases, however, are on record, which approach, in some degree, the peculiar malformation we have before us. The first is that detailed by Harvey of a young nobleman—the son of Lord Montgomery—in whom there existed a cavity of the left side (the consequence of a fall, attended with fracture of the ribs and followed by a suppurative abscess), through which the heart could both be seen and touched; the second, that mentioned by Mr. Lyons, of Dublin, as having occurred in a boy, 14 years of age, laboring under a deformity consisting of lateral curvature of the spine and a deviation of the ribs, admitting, through a triangular space (covered only by integument) thus left in the side of his chest, a partial view of the motions of the heart. And I beg leave to read from the manuscript of Dr. J. Hughes Bennett, of Edinburgh, the record of a case still more analogous, with which I will close this imperfect sketch. "Eleven or twelve years ago, when Pathologist to the Royal Infirmary, I found in the body of a woman who died under the care of Dr. W. Robertson, the very same malformation of the sternum which is to be found in M. Groux. Dr. R. informs me that he has no notes of the case, and he does not remember having made any particular observation upon it. The specimen is preserved in the Museum of this University, and I have always regarded it as a unique preparation. M. Groux informs me it is the only one of the kind which, in the course of his visits to the various medical schools, he has met with." It does not appear, however, that any observations of this case were made during life.

M. Groux was now introduced by Dr. Upham to the Society.

He is 28 years of age, rather below the ordinary stature, of a pale countenance, but in good health, and well formed, excepting the sternal fissure. On the anterior median line of the thorax is a longitudinal V-shaped depression, occasioned by a want of union of the halves of the sternum. The width of this depression, during quiet respiration, is about one inch and a quarter at its upper part, gradually diminishing in width as it approaches the ensiform cartilage, where it reaches its apex. The depth of this depression is ordinarily about half an inch, being somewhat greater during natural inspiration, and very much increased by a forced inspiration. By the action of the pectoral muscles, the width of the fissure can be much increased, being dilated to about two inches and a half at its upper part; while

the action of the deltoids and trapezius diminish and even wholly obliterate it. It can also be increased by forced expiration, and diminished by forced inspiration, at pleasure.

In this triangular space, two beating tumors can be seen: one, the most prominent, being on a line with, or a little above, the fourth rib; the other below, and toward the bottom of the fissure. A third is also perceptible to the touch at the upper margin of the space.

M. Groux can produce, by forced and prolonged expiration, a protrusion of the lungs, the depression now becoming a tumor of a semicylindrical form, giving a clear sound on percussion. Coughing also exhibits this phenomenon in a remarkable manner, the lung suddenly springing up and falling back with the greatest rapidity.

M. Groux also has the power to stop the pulse at will, by taking a full and powerful inspiration and retaining the breath. The pulsating tumor can also be enlarged by entirely exhausting the lungs of air, and closing the channels to its ingress for a few moments. In the triangular space above mentioned, the motions of the heart, or of certain portions of it, are visible, and its sounds distinctly heard. What these sounds are, or what composes the principal pulsating tumor in the fissure, is a question upon which physiologists are divided in opinion.

Dr. Holmes remarked that there were some points in connection with this case that had not been alluded to, and to which he would refer. The first was in regard to the process of ossification in the sternum. He stated that the first or upper portion, judging by the specimens in the Warren Museum, ossifies from a single centre; commonly, also, the other pieces which make the body of the bone. In some instances, however, there have been found two or three pairs of lateral centres of ossification; the non-union of which in the median line would leave a fissure, similar to that which exists in the case of M. Groux. This tendency is also noticeable in the bifurcation often presented by the ensiform cartilage. Dr. H. exhibited two specimens of the sternum, in which perforations existed, these also suggesting the same tendency. This was also evident from the fact that the upper piece of the sternum sometimes presents, on its superior edge, two nodules—the *episternal* bones. Dr. Holmes further alluded to the analogy between the sternum and the vertebral column, and the correspondence between the fissure in the former and that which exists in *spina bifida*. With regard to the sterno-mastoid muscle, the inner head was apparently inserted on the divided portion of the sternum on each side. Dr. H. next alluded to the question as to what constitutes the tumor at the upper part of the fissure. So far as his examination had enabled him to form an opinion, he had favored the view that it was the right auricle. In forming a conclusion, it was important to note the points of the surface to which the various parts of the heart correspond. In a drawing of Pennock, the apex of the right auricle appears to reach as high as the cartilage of the second rib. In a plate given by Hope, it extends only to the cartilage of the third rib. (In a robust subject laid open for the purpose, the right auricle lay on the median line, extending from the fourth to the upper edge of the third rib. In this subject, however, which was exhibited to the College Class at the time when M. Groux was presented before it, the lungs being collapsed, and the contents of the chest falling away

from its walls, all the relations of the viscera and the parietes were different to some extent from what they were during life.) The dull sound heard over the tumor, if ventricular, should be followed by the second, or valvular sound. This, however, if heard at all, is only suspected, as it were. It seemed probable, therefore, that this sound was that proper auricular sound which has been occasionally observed, especially in cases of disease of the auriculo-ventricular valves. The analysis of the movements and sounds of the heart is by no means easy, as is shown by the contradictory results of various observers, and it would be necessary to make a number of observations before attempting to answer all the questions the case suggests.

A further and full report of this interesting case will be given as soon as the result of the Committee's examination shall have been received.

Dec. 13th.—*Irritability of the Heart, induced by contiguity of Inflammation of the Lungs.* Dr. Bowditch mentioned the case. It was not until the inflammation, which had already affected other portions of the lungs, had reached a part contiguous to the heart, that the pulse rose to 156. In other respects, the patient at this time was no worse. On auscultation, fine crepitus was audible, but no pericardial or endocardial murmur. Digitalis only was given, and the inflammation ultimately subsided, leaving no lesion. Dr. B. thought the case interesting, as showing the influence of pneumonia on the action of the heart.

Dr. J. Ware mentioned, in connection, the following case. The patient was a female, aged from 70 to 80 years. She had an affection of the chest, which produced much distress about the heart, from which pericarditis, or some disease of the organ itself, was inferred. After death, however, pneumonia only was discovered.

In this case, although cardiac symptoms were apparent, none being referrible to the lungs, the heart proved to be sound, and the lungs diseased. He attributed this circumstance to contiguity. To contiguity also is to be attributed the irritability of the heart sometimes induced by certain conditions of the colon, a portion of which lies near this organ, as, for example, when distended by gas; also, by certain affections of the stomach.

Dec. 13th.—*Diphtheritis rapidly terminating in Croup.* Case reported by Dr. Borland.

G. H., a girl nearly 8 years old, inmate of an institution for orphans, &c., of a leuco-phlegmatic temperament, sufficiently well developed, and having had no other illness than a slight attack of measles for at least one year previously, began to feel slightly indisposed—but, as she afterward acknowledged, made but little complaint of her illness or of the throat, "fearing she might be kept home from school."

Dec. 10th.—Dr. B. was called, and found her up and about. Pulse 120. Skin dry. Slight, loose cough. No appetite. Bowels open. No rash of skin. Great fœtor of breath. Inspection of the throat revealed marked swelling of the tonsils and uvula, with purulent secretion. Ordered hydr. cum creta, gr. ij.; pulv. rhei, gr. iv. M.; and the throat to be frequently sponged out by the probang, soaked in a solution of nitrate of silver (six grains to the ounce of water).

11th.—The patient was in bed, and separated from the other chil-

[illegible]. All the symptoms were more urgent, there being some cough; expressive fœtor of the breath; pulse 140; skin dry; anorexia; throat more swelled externally and internally, with pultaceous membrane resembling a slough over the tonsils and uvula. ℞. Potassæ chlorat., [illegible]; aq. menth. virid., ʒi., M., to be taken every three hours, and the application to the tonsils to be continued.

[illegible] P.M.—Hard, ringing cough, as in croup, for the last two hours and a half. Throat more swollen, respiration labored, and accompanied with tracheal and bronchial râles. Deglutition impossible, even of water, until after use of the tonsillotome. Top of right tonsil was [illegible] by the tonsillotome, and fauces thoroughly swabbed with liq. perchloridum, ʒi. to ʒiv., and an emetic of sulphate of zinc ordered to be taken immediately.

[illegible] P.M.—Pulse 160. Skin as before. Had almost had convulsion from asphyxia, which was relieved by swabbing throat with nitrate of silver. Emetic acted well. Cough rather less urgent, and looser. Had thrown off one or two pieces of membrane of the size of a threepence. Fœtor of breath somewhat less. More air enters lungs. [illegible] application of ferri perchlor. to fauces.

[illegible] A.M.—Had had a bad night, restless, disturbed with spells [illegible] dyspnœa. Now appears weaker, and voice is only heard [illegible] whisper. Skin perhaps a little more dusky and dry. No [illegible] been seen. Fœtor of breath not so offensive. Pulse 136, [illegible]. External swelling of throat is less on left side. Cough ur[illegible] sounding exactly like that in membranous croup. Respi[illegible] respiratory murmur very feeble. Inspection of fauces [illegible] tonsils less swollen, covered with a sloughy-looking [illegible] uvula swollen, and of a vivid red. Deglutition more easy. [illegible] opened. Great thirst. The treatment to be continued; [illegible] and oyster broth were ordered.

[illegible] had just had a severe convulsion. Pulse 168. Cough [illegible] expressive. Respiration labored.

[illegible] symptoms same as at last record. Pulse 136. No recur[illegible] convulsions. From this time the patient continued to fail, [illegible] o'clock on the following morning. Patient was seen in [illegible] by Dr. Lyman.

[illegible] ten hours after death. Thorax only examined. [illegible] collapsed. Right lung, old pleural adhesions over back. [illegible] spots of pultaceous membrane. Epiglottis thick[illegible]. Mucous membrane pale. Trachea and bronchia [illegible] with soft, white membrane, which was easily detach[illegible] membrane pale, but becoming a little reddened upon [illegible] were emphysematous, but otherwise healthy.

[illegible] *Wound of the Left Groin.* Dr. Morland report[illegible]

[illegible] suddenly, at 10 o'clock, A.M., Nov. 4th, to see [illegible] years old, and a deaf mute; whom the messenger [illegible] dreadfully cut by a "fly-wheel," which drove a [illegible] saw-mill. Dr. M. inferred, from the hurried state[illegible] subsequently, that the *circular saw* had been the [illegible] the injury. This was afterward ascertained not

The patient was found lying upon a bed, partially dressed: he was evidently in great pain; his hands and wrists were very cold; occasionally, he shivered; the pulse was regular, though weak. Ascertaining, immediately, that there was no bleeding of any consequence from the truly frightful wound which existed in the left groin, gin and water, in the absence of brandy, was ordered, and he soon rallied from the immediate shock of the accident. Ether was sent for, and Dr. Williams, who was fortunately near at hand, was so kind as to administer it to the patient, and to assist during the dressing of the wound.

The patient being etherized, the wound, a gash 11¾ inches in length, was thoroughly examined, and the saw-dust and other foreign matters sponged from it. It began at the outer edge of the ilium, about an inch below its crest, and went, with a very slight curve, downward and inward, across the inguinal region, then, just beneath the root of the scrotum, and terminated in the left buttock, penetrating, there, about one half an inch. The natural looseness of the skin, in the neighborhood of the wound, allowed the latter to gape widely; and a broad denuded surface was presented, but only moderately bleeding. The fascia, however, was unharmed, and no large bloodvessel injured. Several superficial veins stood up in bold relief, and one or two branches, which were decided to belong to the internal saphenous vein, were particularly prominent. It seemed impossible that a wound, inflicted, as was then supposed, by a circular saw revolving at full speed, could have taken such a direction—and, moreover, that the implement should not have caused instantaneous fatal injury. Less than the eighth of an inch more, in the depth of incision, would have divided the large vessels, and nothing, under the circumstances, could have saved the patient's life.

Sixteen sutures were required, accurately to close the wound. Cold water dressing was applied, and the patient was left, still somnolent, but with a stronger and fuller pulse. The case was then referred to Dr. C. G. Page, whose patient the boy was, but who was professionally engaged, at a distance, when the accident happened. Dr. P. found him quite comfortable in the afternoon. A cradle was placed over the injured limb, to elevate the bedclothes.

Dr. Morland further stated that he visited the scene of the accident, November 5th, with Dr. Page, for the purpose of learning how it happened. They were at once informed, by the man who discovered the boy after the accident, that the injury was *not* inflicted by a saw. This resolved the mystery above alluded to, viz., how the saw could get into such a position; or, if it did, why it did not cut half, or wholly, through the thigh. It would seem, from all that could be ascertained, by careful inquiry, that the patient's trowsers must have been caught by the heads of the bolts which fasten the coupling-wheel; and that he was whirled around the shaft, which made 124 revolutions in the minute, between the said wheel and a smaller "pulley-wheel," until his clothes gave way, when his body was projected from the shaft, to a distance of several feet.* Very probably, muscular efforts on the patient's part assisted him in escaping from the shaft. The shaft and wheels alluded to, are in the cellar or basement of the

* The traces of his boots on the ground composing the cellar floor, and his own assertions, confirm this statement.

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... stated that the febrile action,
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... ous process of the ilium, along
... its apex about the middle of the
... granulation. He recovered rapid-
... granulations were healthy, and Dr.
... st. leaving him nearly well.

Case reported by Dr. Fifield, of

... th, having always been of good
... n, at the age of 56, during the
... ived a fulness about the upper
... nce in stooping. In September,
... Some weeks later, a circum-
... s found in the region of the right
... atment was pursued without effect,
... On the 25th of April, 1847, she was
... of the linea alba. She was subse-
... always in nearly the same place.
... ed at different times: sometimes it

resembled thin gruel, twice almost like whey; more frequently it resembled boiling soap. The color was not always the same; sometimes of a dark brown, sometimes lighter. The wound always healed readily till the last tapping, when it kept open several days. The lower limbs were always greatly swollen, and latterly burst open. The swelling always subsided after tapping. The patient died Dec. 7th, 1858, aged 70.

*Sectio Cadaveris.*—Body generally greatly emaciated. Abdomen much distended. As a good deal of inconvenience was anticipated from the presence of a large quantity of liquid, it was determined to tap before opening the body. For reasons of convenience, the puncture was made through the linea semilunaris on the right side. The trocar being withdrawn, a half fluid substance, looking exactly like soft soap, passed slowly through the canula, which, soon being completely blocked up, was withdrawn, and the usual incision into the linea alba made. The anterior surface of the sac adhered so strongly to the peritoneum as not to be distinguished from it, and the first incision penetrated directly into the sac. Thirty pounds of liquid was then dipped out. The lower stratum of liquid had the same soapy appearance as that drawn by puncture. The sac being emptied, the interior was seen studded with an immense number of smaller cysts of various magnitudes, from the size of a large pea to that of a small cocoanut. The whole cyst having been removed, it was perceived that the puncture in the semilunar line had passed into one of the smaller cysts, without penetrating the great sac. The following table of the number of tappings and quantities removed, has been drawn up by Dr. Appleton Howe, the attending physician.

| | | |
|---|---|---|
| April 20th, 1847, 50 pounds.* | July 25th, 1854, 65 pounds. | Dec. 21st, 1857, 68 pounds. |
| Oct. 10th, 1847, 44 " | Dec. 24th, 1854, 66 " | Feb. 8th, 1858, 66 " |
| June 19th, 1848, 55 " | May 22d, 1855, 63 " | M'ch 26th, 1858, 70 " |
| April 1st, 1849, 60 " | Nov. 13th, 1855, 62 " | May 11th, 1858, 70 " |
| Jan. 8th, 1850, 62 " | May 8th, 1856, 63 " | June 29th, 1858, 76 " |
| Oct. 23d, 1850, 63 " | Sept. 23d, 1856, 64 " | Aug. 12th, 1858, 74 " |
| April 9th, 1851, 65 " | Jan. 15th, 1857, 65 " | Sept. 21st, 1858, 73 " |
| March 11th, 1852, 66 " | April 14th, 1857, 66 " | Oct. 24th, 1858, 60 " |
| Dec. 28th, 1852, 65 " | June 24th, 1857, 65 " | Nov. 23d, 1858, 49 " |
| July 23d, 1853, 64 " | Sept. 1st, 1857, 64 " | Dec. 8th, 1858, 30 lbs. at autopsy. |
| Feb. 10th, 1854, 63 " | Oct. 30th, 1857, 66 " | Total, 2002 pounds. |

The celebrated epitaph on the Monument of Dame Mary Page, in the Bunhill Fields, states that she was tapped 66 times in 67 months, and had taken away 1920 pints. In the *Philosophical Transactions* for 1784, Mr. Martineau gives the history of the case of Sarah Kippers, who was tapped 80 times in 26 years, and had 6631 pints taken from her, or upwards of 13 hogsheads: 108 pints was the largest quantity taken at once. After death, Mr. Martineau could make the sac contain only 50 pounds.

Dr. Jackson remarked that the parietes of many of the secondary cysts presented, to a considerable extent, a very unusual appearance, and as if sphacelated by the application of a strong caustic. At first there was thought to be an effusion of lymph, as the result of the inflammation that is liable to occur when the wound does not heal after paracentesis; but no trace of such an effusion was found. The parts referred to had an opaque, dirty-grayish-white, moist, soft, dead look; the change being superficial and as definitely limited as any slough

* By weight.

formed upon the surface of the body by a mineral caustic. In a few of the compartments of the secondary cysts was a substance that would be unusual in the midst of the great variety of contents generally found; and that might be compared to a thick, tenacious, snow-white, homogeneous paste.

Dec. 13th.—*Rupture, several times, of an Ovarian Cyst, and ultimate distension of the Peritoneal Cavity by a substance resembling soft soap.*—Dr. Jackson showed the specimen and reported the case, which occurred in the practice of Dr. A. A. Watson.

Miss G., æt. 54, had always been quite healthy, though of very sedentary habits. About five years ago, the catamenia ceased, and she very soon afterward had the first of several attacks which it is supposed would warrant the above diagnosis. A rounded, hard, smooth tumor would appear in the region of the left ovary, without tenderness or pain, but with a general feeling of indisposition. In the course of a week or two, the tumor would suddenly disappear, a soft, diffused swelling across the hypogastric region would follow, and she would almost at once be seized with universal cramp-like pains and retching; the pains were so severe, that she would sometimes fall upon the floor when the attack came on, but in the course of three or four hours they would subside. The retching would continue for about the same time, but with little or no vomiting; the hypogastric swelling would gradually subside, the whole attack lasting from about two to four weeks. At first the tumor was about the size of a small apple, but it enlarged somewhat with each attack.

About three years ago, having altogether had six or seven attacks, the character of which was very similar, she had the last, and this was by far the most severe. The tumor enlarged to the size of a pint bowl, and it did not burst for two or three months, the exact time at which the rupture took place being most satisfactorily indicated: she was awaked from her sleep by a sensation as if she had been slapped with the hand upon the tumor, and at once this last disappeared. She then awoke her sister, told her the circumstances, and said that she felt as well as she ever did. In a few minutes, however, she was attacked with the usual symptoms, which, as above stated, were more severe than ever before, the swelling of the abdomen continuing for some weeks.

In the autumn of 1857, enlargement of the abdomen commenced without the precursor of an attack; and from that time it went on increasing, but it was only since the middle of the last summer that it would have been noticed when she walked abroad. She lost flesh and a great deal of strength; but she was able to do some work as a tailoress, was never confined to her bed, and walked out within three or four weeks of her death. There never was any return of the general pains, and over the abdomen her only complaint was of a sense of weight. The appetite was good to the last, excepting during the attacks; bowels generally well; urine scanty and turbid. Œdema of feet for the last two months. An hour or two only before her death, she said that she felt very sick, but made no especial complaint, and had then only just left her sitting-room. She was never tapped.

On dissection, the peritoneal cavity contained, by estimate, six or seven gallons of a very viscid substance, that was compared, at the

time, to soft soap. A stout, muscular man, who works in a machine-shop, and was in the habit of lifting heavy weights, undertook to remove the tub that contained this substance, but found it too heavy; and on setting it down, said that he should estimate the weight at 200 pounds. In the place of the left ovary, was a mass of disease that appeared very satisfactorily to consist of a cyst about as large as the two fists. This cyst had been lacerated throughout the greater part of its extent; the edges, apparently cicatrized, of the laceration, being quite distinct. Its interior was made up of cysts, generally from two to four lines in diameter; and from it there hung off a secretion which was somewhat clear, but altogether too viscid to be removed without great difficulty. The serous surface of the cyst had, in some parts, a dark-brown discoloration; and in others, a brilliantly glistening and silvery appearance, which Dr. Ellis found, on microscopic examination, to be owing to cholesterine. The spleen was quite small, and the investing membrane thickened and opaque, with much of the silvery appearance just referred to. Otherwise the organs were healthy so far as observed.

Dr. J. said that a case of supposed rupture of an ovarian sac into the abdominal cavity, was reported some years ago to the Society, if he was not mistaken; but that was the only one that he had heard of, as having occurred here. In the above case, if it has been rightly interpreted, it is remarkable that the fulness of the abdomen should have subsided after the last rupture of the sac, and not gone on increasing from that time as it did from the commencement of the last year. The disease, however, seemed to be quiescent during the intervals of the previous attacks. Dr. J. remarked upon the curious fact that in the above case, and also in Dr. Fifield's, the same comparison was made to soft soap in speaking of the products of the diseased ovary.

Dec. 27th.—*Fibrous Tumor of the Uterus and of the broad Ligaments.*—Dr. Page showed the specimen.

At the next meeting Dr. Jackson said that, on a further examination of this specimen, he found two or three of the tumors in the broad ligament; their structure being perfectly similar to that of the others. He had found them in this situation but once or twice, and was rather surprised that they were not oftener seen there, as the uterine muscular fibres from which these tumors originate, are sometimes so distinct in the broad ligament. The upper extremity of the cervix uteri was obliterated, as it so often is in old women; a fact that it may be well to bear in mind when the uterine sound is thought of.

Dec. 27th.—*Dislocation of the Transparent Crystalline Lens into the Anterior Chamber.* Dr. Williams reported the case of a patient about thirty years of age, who was exhibited by him to this Society, 11th Dec., 1854, at which time the crystalline of the right eye was dislocated into the anterior chamber. The lens was also displaced in the left eye, though it had never slipped through the pupil.

Since the above period, by the observance of the precautions enjoined by Dr. W., the lens has rarely been projected through the pupil, and, when this has once or twice occurred, it has readily returned to its place after lying upon her back for a short time. Three weeks since, however, on making a slight effort whilst stooping, dislocation

into the anterior chamber again occurred, and it has remained in this situation. The symptoms have been, dull circum-orbital pain, and diminished vision, whether with or without the cataract glasses she has been obliged to wear to replace the absent lenses; but there has been no injection of the eye. The lens has a very sharply-defined edge, is slightly straw-colored in tint, like a large drop of olive oil; but is perfectly transparent, so that the structure of the iris, considerably magnified, could be seen through it. It formed, as it were, a pouch for itself, at the bottom of the anterior chamber, pressing heavily upon the lower part of the iris. There was no appearance of any attachment, as by a suspensory ligament, passing through the pupil. On the contrary, the pupil was rather contracted and perfectly regular.

The treatment consisted in the application of a solution of atropia to the conjunctiva, which caused enlargement of the pupil in about the usual period. The patient was then placed upon her back, and the lens soon returned to the posterior chamber.

More than four years have elapsed since this patient was exhibited to the Society. It is therefore certain that the lens may continue displaced for this length of time without undergoing any apparent change either in size or transparency. Another instance, where, however, the dislocation was traumatic and not spontaneous, has been nearly three years under Dr. Williams's observation, without the occurrence of any opacity or absorption; but in this case there is reason to believe that the lower portion of the suspensory ligament may not have been ruptured.

Dec. 27th.—*Typhoid Fever; Perforation of the Intestine about the twelfth day; Death forty-eight hours after the perforation.* Case reported by Dr. Putnam.

A healthy muscular young man, with dark hair and eyes, was first visited on the 15th November. He had been sick a little more than a week. The skin was not remarkably hot or dry; the pulse of good strength—80 to 90; the tongue dry, glazed and brown, and the lips sore and cracked. There were numerous rose spots. There was very little headache. The patient was somewhat deaf; mind, for the most part, clear. There were four or five dejections a day, without pain. The abdomen rather full and resonant, but not tense. Urine sufficient. He had a decided appetite for farina and milk. Was ordered twenty drops of the spirits of nitrous æther and five drops of the fluid extract of opium every three or four hours.

Nov. 16th.—There was bleeding at the nose—not excessive.

Nov. 19th.—At 3, A. M., he had sudden severe pain around the umbilicus. There was also pain on pressure in the right inguinal region; no dulness on percussion. Pulse 120. Took twenty drops of liquid extract of opium. During the day slept a good deal. No dejection; no urine except by catheter.

20th.—Pulse 120 to 130. Countenance more uneasy. He complained of pain in the abdomen, but not extreme. No dejection. Urine by catheter. Opiate, *pro re nata.*

21st.—Death took place at 2, A. M., preceded by great pain.

*Sectio Cadaveris.*—The intestines were found somewhat distended with flatus. There was also a general reddish discoloration of the

peritoneal surface. No effusion was found into the pelvis of the contents of the intestine. A perforation, about an inch in diameter, was found about two inches from the cœcal valve. The floor of the ulcer seen to have entirely sloughed through. On the peritoneal surface, coagulable lymph existed for the space of an inch around the ulcer. There were only one or two very small ulcers in the vicinity. None of the other patches were distinct. The spleen was of a blue color, and one third larger than natural. The liver was of a dark slate color, otherwise natural. One or two of the mesenteric glands, near the ulcerated intestine, were enlarged and softened. Kidneys healthy. Mucous membrane of the stomach healthy.

There are many points of interest in this case. 1. The occurrence of perforation while the symptoms of the disease were by no means severe.

2. A desire for food, although the tongue was exceedingly brown and dry.

3. The small amount of pain and prostration after the perforation had occurred. We should have expected the face to be pale and haggard, as in a case of gun-shot wound; but the pain was subdued by only twenty drops of laudanum, so that the patient slept profoundly for six or eight hours. He also had strength enough to assist when turned on his side, after the introduction of the catheter.

4. The absence of ulcerated and raised patches. We rarely meet with a case where there is one extensive ulceration, that there are not a large number of different sizes in the neighborhood, and such of the patches as are not ulcerated, are well defined and elevated. Here, with the exception of the perforated patch, there were only one or two ulcers of small size, and hardly a trace of the elevated *plaquet*.

Dec. 27th.—*Puerperal Peritonitis; Treatment palliative and expectant; Recovery.* Dr. Jacob Bigelow reported the case.

A lady, aged 25, after a favorable confinement with her first child, was attacked, at the end of three weeks, Nov. 27th, with symptoms of peritonitis, such as chills, heats, intense continuous pain, beginning in the right half of the abdomen and speedily extending to the left; excessive tenderness of the whole abdomen, much nausea, and pulse of 90. Lochia slight; milk diminished.

2d day.—Pain incessant; soreness increased, rendering pressure intolerable; skin hot; vomiting frequent and exceedingly distressing, owing to the abdominal soreness; pulse 110; milk diminishing; tongue loaded with a white coat; bowels costive.

3d day.—Pulse 120. Pain, soreness, heat, thirst, restlessness, greatly increased. Abdomen somewhat tumefied. Patient kept the supine posture, with knees a little raised, and could not bear to be moved across the bed. Was seen, in consultation, by Dr. James Jackson, who agreed in the extreme danger of the case, and an unfavorable prognosis was given to the friends.

4th day.—Pulse 130. Pain somewhat less, but soreness undiminished. Nausea, vomiting, thirst and coated tongue continue, with great general distress. Milk greatly diminished; still the child gets a little, morning and night.

5th day.—A spontaneous diarrhœa appeared, with watery and mu-

cous dejections, at intervals of about an hour. This was not interfered with, and ceased after three dejections.

6th day.—Has rested a little better. Vomiting ceased; pulse 116 to 120; abdominal tenderness continues unabated; anorexia and some nausea. Keeps the supine posture.

7th day.—Pain returned for most of the day. Pulse 120; soreness increased; more heat and thirst, followed, however, by a better night.

From this time the patient continued slowly to improve, but was not well enough to be removed to a couch till after a fortnight, and could not bear the erect posture for some days longer.

At the present time, one month from the attack, the patient sits up half the day. Has good spirits, natural sleep, and moderate appetite. Pulse 84. Lies freely on either side, has no pain, but the central parts of the abdomen and hypogastrium are still moderately tender on pressure, and somewhat dull on percussion. The milk continues, up to this time, in small quantity.

The treatment of this case has been mostly palliative and expectant. The tendency to vomit precluded, for some time, the exhibition of any cathartic, but a movement was at length obtained by small doses of senna, given every three hours. Four leeches only were applied to the abdomen on the second day, and two more on the seventh, but the blood taken in this way could not have been much. Sinapisms were occasionally applied, and morphia, in doses of from $\frac{1}{15}$ to $\frac{1}{8}$ of a grain, was given one or more times in a day while the pain lasted.

This case would not have been thought worthy of report, except that it may serve to show the fallacy of the inferences so frequently drawn from the supposed effect of active treatment in single cases, or in a few cases, of this disease. Had this patient been bled repeatedly to deliquium, or been wrapped in a wet sheet, or drugged with opium or turpentine, and survived any of these modes of practice, the credit of recovery, not usual in similar cases, would, very probably, have been given to the particular practice pursued.

Dr. Minot asked as to the propriety of giving cathartics: and whether they would not be as likely to aggravate as to benefit the disease.

Dr. Bigelow replied, that the presumption is that cathartics are serviceable as depletives in most cases of inflammation; that their action is not, it is true, to be depended upon in peritonitis, and often fails; but, nevertheless, they afford some satisfactory indication of the condition and degree of excitability in the bowels, and aid both diagnosis and prognosis.

Dr. Putnam thought their use in the early stage of the disease by no means prejudicial, and alluded to the practice of a Salem physician, who gave turpentine early in the affection, and who was peculiarly fortunate in the issue of his cases. The benefit of this treatment seemed to be confirmed by the fatality of the disease in the hands of another practitioner, in the same town, who adopted a different course of treatment.

Dr. Bigelow further said that it is often difficult, and sometimes impossible, to move the bowels in severe peritonitis; but that it is satisfactory to the physician to know whether they are capable of being acted upon or not. He would resort only to moderate means, but

would not persevere if distress or vomiting were evidently caused by them.

Dr. Storer differed in opinion from Dr. B., in the statement that bleeding is of doubtful value in this disease. He would be very unwilling to treat a case of puerperal peritonitis without the liberty to use the lancet, if this were necessary. He asked if the greater number of patients do not recover under this treatment.

Dr. B. replied, that although cases of recovery undoubtedly take place under this treatment, many others prove fatal; and that, on the other hand, recovery occurs without it. It is a subject on which medical men are not agreed.

Dr. Jackson remarked, that as in pleurisy the affected part does not move so freely as in health, so in peritonitis, constipation seems to be a natural means of preventing the aggravation of the inflammation by the diminution of peristaltic action. It seemed therefore rational not to interfere with this condition, unless absolutely necessary.

In reply to inquiries, Dr. Bigelow regarded constipation as the consequence and not the cause of peritonitis, and hence saw no objection to moderate means in the outset of the disease, either by the mouth or rectum, when the state of the stomach and other symptoms did not decidedly contraindicate them.

Dec. 27th.—*Large Gall-Bladder.* The specimen, shown by Dr. Ellis, was taken from a patient who died of Bright's disease, under the care of Dr. Miller, of Dorchester.

The gall-bladder was filled with bile, and measured, along its greatest curvature, about nine inches. No obstruction was found between the gall-bladder and intestine.

Dec. 27th.—*Wound of the Left Nympha in a Pregnant Woman; Profuse Hæmorrhage.* Dr. Morland read the following account of the case.

"Jane McCormack, a married woman, of delicate appearance, 21 years old, and five months advanced in her second pregnancy, fell upon the roof of a wood-shed, by slipping from one of the steps by which the roof is ascended. She was hanging clothes to dry, at the time—about 7 o'clock, A.M., Dec. 16th, 1858. The patient's husband came with a request that I would go as quickly as possible, as his wife was 'flowing badly.' I found her in bed, with a blanched countenance—the lips, even, being white—an anxious expression, and occasional shivering and sighing. Her own statement was that she had fallen, as above stated, and that she thought she must have lost at least three quarts of blood. A neighbor, who was assisting her, estimated the amount at over a quart, in which estimate the patient's husband coincided. I was unable to form an opinion as to the actual amount of blood lost, since part of it was mingled with some ashes in a half-peck measure — the ashes being thoroughly saturated—and the rest was absorbed by cloths, the patient's under-clothes, and the bed-clothes. The quantity, however, must have been very large. This fact was evident, also, from her condition and appearance. She had once or twice fainted in an alarming manner; her pulse was thready, and had been, at times, hardly perceptible. It improved,

gradually, during my visit. The by-standers stated that when she was first brought into the house, after the accident, the blood was running from her like water from a water-faucet.

"There being no evidence of labor-pains, and the bleeding having nearly ceased when I arrived, I inclined to the opinion that the hæmorrhage was from a wound of the external organs of generation, rather than from the uterus. On examination, I discovered a wound about one inch and a half long, by half an inch deep, upon the internal surface of the left nympha. The gash was covered by a clot, which I removed, in order to ascertain if any open vessel could be seen. A slight oozing was alone observed. Compression was applied, by means of folds of linen, wet with cold water—one inside, against the surface of the wounded nympha, and two outside, over the left labium; a larger compress was placed over the entire genital fissure, and retained by a T bandage. The patient was told to stay in bed and to have only cold drinks. Brandy and water was administered, and directed to be repeated if necessary—as, if fainting recurred, &c. The patient had herself applied *ashes*, freely, to the vagina, during the profuse bleeding—which, together with the recumbent posture she soon assumed, seems to have been instrumental in stopping the hæmorrhage.

"I visited her again at 3½ o'clock in the afternoon of the same day. There had been no more bleeding; the dressings were removed and renewed. Directed a full dose of the tinctures of opium and hyoscyamus at night.

"17th Dec., 9½ o'clock, A.M.—The patient had, just after my second visit yesterday, pains, which were described by her as precisely those known as 'premonitory' of labor. They began at 4 o'clock, P.M., and lasted four hours. Just previous to their supervention, the child's motions became tumultuous, powerful and persistent, for some time. She said it 'kicked her awfully.' At 8 o'clock, she took the laudanum and hyoscyamus as directed,* and, by her own account, the pains left her in about fifteen minutes, and she went to sleep. This morning (17th), she is comfortable; there has been no more bleeding; the wounded region is somewhat sore; she feels 'lame all over,' from her fall. She perceives the motions of her child; but they are not, as yesterday, tumultuous and violent. A cough, to which she is always subject, troubles her, and is to-day severe. A mixture containing syrup of tolu, syrup and tincture of sanguinaria, and paregoric, was ordered. She passes her water freely and without pain.

"18th.—Patient is feverish, with flushed cheeks and quick pulse, skin dry and hot. Has had no good sleep, on account of cough; has a sharp pain in the right side, and in front of the chest. Sinapisms; cough-mixture continued; flaxseed-tea. No more bleeding; no more labor-like pains. To keep quiet.

"19th.—Much better in every way; countenance pale; weakness complained of; no bleeding; some soreness of vagina. Pain in side and chest gone. Added to the flaxseed tea, spiritus ætheris nitrosi, and gave castor-oil and lemon-juice as a purgative—nothing having passed the bowels, since the first day, but very hard scybala. Aus-

* Of course, had this condition been known by me, she would have had the medicine sooner.

cultation over the abdomen gave the sounds of the fœtal heart very plainly, and they were normally expressed.

"The wound, in this patient, was undoubtedly inflicted by the sharp corner of one of the steps upon the shed above mentioned—against which she had fallen with full force. I have mentioned the case, principally, to show how much violence certain patients will bear, during pregnancy, without producing miscarriage—although there at one time seemed a threatening of such a result—and also to call attention to one other point, viz., the great amount of blood lost—an amount seemingly wholly disproportioned to the actual extent of the wound, and which may be partially—in a great measure, perhaps—explained by the condition of the patient; more blood being directed to, and contained in, the entire generative apparatus, during the pregnant state.

"Additional interest also attaches to this case, from the fact that, in an example strikingly analogous, reported to the Society, June 22d, 1857, by Dr. Ellis (see *Records*, Vol. III., p. 121), the result was fatal. The patient, in that instance, was a healthy woman, seven months advanced in pregnancy; the wound resulted from a fall of about the same height, and was in precisely the same region—upon the left nympha—and of just about the same extent. Dr. Z. B. Adams, who was called to this woman, was unable to arrest the profuse hæmorrhage, and 'she died in about three quarters of an hour after the accident.'

"Several members of the Society referred, in connection with Dr. Ellis's report, to violent hæmorrhage occurring after wounds of the genitals, during pregnancy; and the above-mentioned turgidity of the tissues during that epoch, was then alluded to as an undoubted cause of its abundance and uncontrollable character."

"Dec. 27th, 1858.—Visiting my patient to-day, I found her nearly as well as usual, and about her work."

# SUPPLEMENT.

# SURGICAL CASES.

COMMUNICATED TO

THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT,

OCTOBER 27, 1856.

BY GEORGE H. GAY, M.D.,
ONE OF THE SURGEONS OF THE MASSACHUSETTS GENERAL HOSPITAL.

# SURGICAL CASES.

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### CASE I.—LARGE FATTY TUMOR OF THE LEFT THIGH.

Mr. Benjamin M. Mc—— is a small, spare-built man, æt. 36, with very dark brown hair, grey eyes and a sallow complexion. About ten years since, he strained the adductors of his left thigh. No other effects followed immediately than what usually take place after muscular strains; and the fact itself may be of no importance except that when asked if he knew any cause for the tumor, he adduced this, as within the range of possibility.

In a few days he thought no more of the strain, as all its apparent effects had passed away, and he had no further trouble at the seat of the lesion, till three years and a half since. He then, after coming out of a bath, noticed, for the first time, that his left thigh was apparently a little larger than the other, at its upper part in front, just below the groin. This increase in size seemed general over the above-mentioned region, and so slightly marked, that, as it gave him no pain nor uneasiness, to use his own words, he thought it nothing abnormal.

About two months afterwards, this enlargement becoming still more apparent and defined, he showed it to his family physician, Dr. A——, who, he states, seemed to regard it as a serious matter, probably a solid tumor, deep seated at its base, containing no fluid, and possibly malignant. By his direction, the tumor was painted frequently, and to vesication, with the tincture of iodine. This application seemed without any effect in diminishing the growth, and its increase became steadily, though slowly, more and more decided, till the expiration of a year from its first commencement, when it began to swell out from the inside of the upper part of the thigh, and quite beyond the normal outline of the limb. At that time it was entirely painless and without sensation to the touch, as large as an

orange in size, soft, uniform in its shape, and not at all pendulous, though perfectly movable. No change in patient's general health was observed then or at any subsequent period. In 1853, the growth being then somewhat more than a year old, an exceedingly distinguished New York surgeon saw it, seemed to think that it contained fluid, and advised an exploratory operation. Other surgeons of the same city were of a similar opinion. No operation, however, was performed.

During the second year, the tumor grew still more towards the surface, laying directly under the fascia, still retaining its globular shape, with a very regular surface, elastic, yielding to the slightest pressure, and exhibiting the most complete feel of fluctuation throughout, so that every physician to whom it was shown, except one, expressed the conviction that it contained fluid. The growth, now in every direction, occasioned considerable uneasiness in the parts adjacent, though the tumor itself appeared to be very torpid and insensible. Towards the close of this year, there were two different explorations of the tumor with a needle, by Dr. ——, of Cincinnati, with the idea that liquid was present. He got nothing but a drop of blood each time.

In 1854, Dr. S——, of B——, under the strong impression that it contained fluid, made an incision through the skin down to the tumor, and nothing escaped but blood. The wound healed slowly but well, and the swelling made its way through the incision in the fascia, and having more freedom for growth and expansion, occasioned much less uneasiness to patient than before. Previous to this operation, the anterior and outer portion of the thigh had considerably enlarged. The first growth outside of the fascia and next the skin, felt to the touch "like so much jelly." Soon portions of it seemed to change from soft to hard, from friction or inflammation, so that it scarcely retained any of the soft, elastic, fluctuating feature, which so strongly marked it in the beginning. At this time, patient says, "my general health does not seem to be affected in the least by the tumor. Last winter I was better than for several winters past."

The following letter will give an interesting account of the above exploration.

"B——, May 31st, 1854.

"On careful examination of the tumor upon Mr. McC.'s thigh, I was confident that it contained a sero-purulent fluid, and that the disease was of the nature of a strumous abscess. The fluctuation

was very remarkable in the whole of the tumor; there was no firm base, like that which usually occurs in medullary tumors, nor were there varicose veins overspreading it. Neither were the sensations present characteristic of medullary tumors. I determined, therefore, to penetrate the tumor in such a manner as to settle the question, as to the presence of a fluid. I therefore struck a bistoury into the most prominent part of the mass, to the depth of an inch and a half, making the external orifice about three quarters of an inch in extent. Greatly to my disappointment, no fluid issued, but a little blood—nothing purulent, nothing medullary. I then inserted my finger nearly the whole length, and found the substance of the part so exceedingly soft and yielding, that the finger displaced it, as it would have done the viscera of the belly, if the finger had been inserted through an opening of the walls. I closed the wound with adhesive plaster and advised rest. A little bloody serum issued from the cut for two days, after which it began to suppurate and cicatrize. The cicatrix is now complete, and the tumor of its former size exactly. The part, however, is harder than before. The general health is the same.

"I still doubt as to the true character of the tumor. I fear medullary sarcoma, but hope that this may not exist. The most appropriate name for it is, perhaps, vascular sarcoma.

"As to treatment, I advise locally, gentle and steady compression by the bandage, and that this be wet with a solution of the acetate of lead or muriate of ammonia. Internally, I have prescribed the iodide of potassium, in doses of five grains, three times a day. His diet should be simple, but nourishing; very gentle exercise may be allowed."

The first time that I saw the patient, professionally, was during the first week of July, 1855. Being strongly impressed with the idea that some operation might be attempted to remove the tumor, he wished me to listen to a detailed account of everything connected with it from the commencement to the present date, to examine it carefully, and give my opinion as well as I could upon it, and say what was the best course to pursue.

At this examination, taking into consideration the general appearance of the patient, with his good health, his frequent, unfatiguing exercise of walking, his good appetite, and, on the whole, his pretty fair digestive powers, the non-interference of the growth with any of his duties, and furthermore, following the minute history of the tumor's progress, with the impression from the sight and touch, I

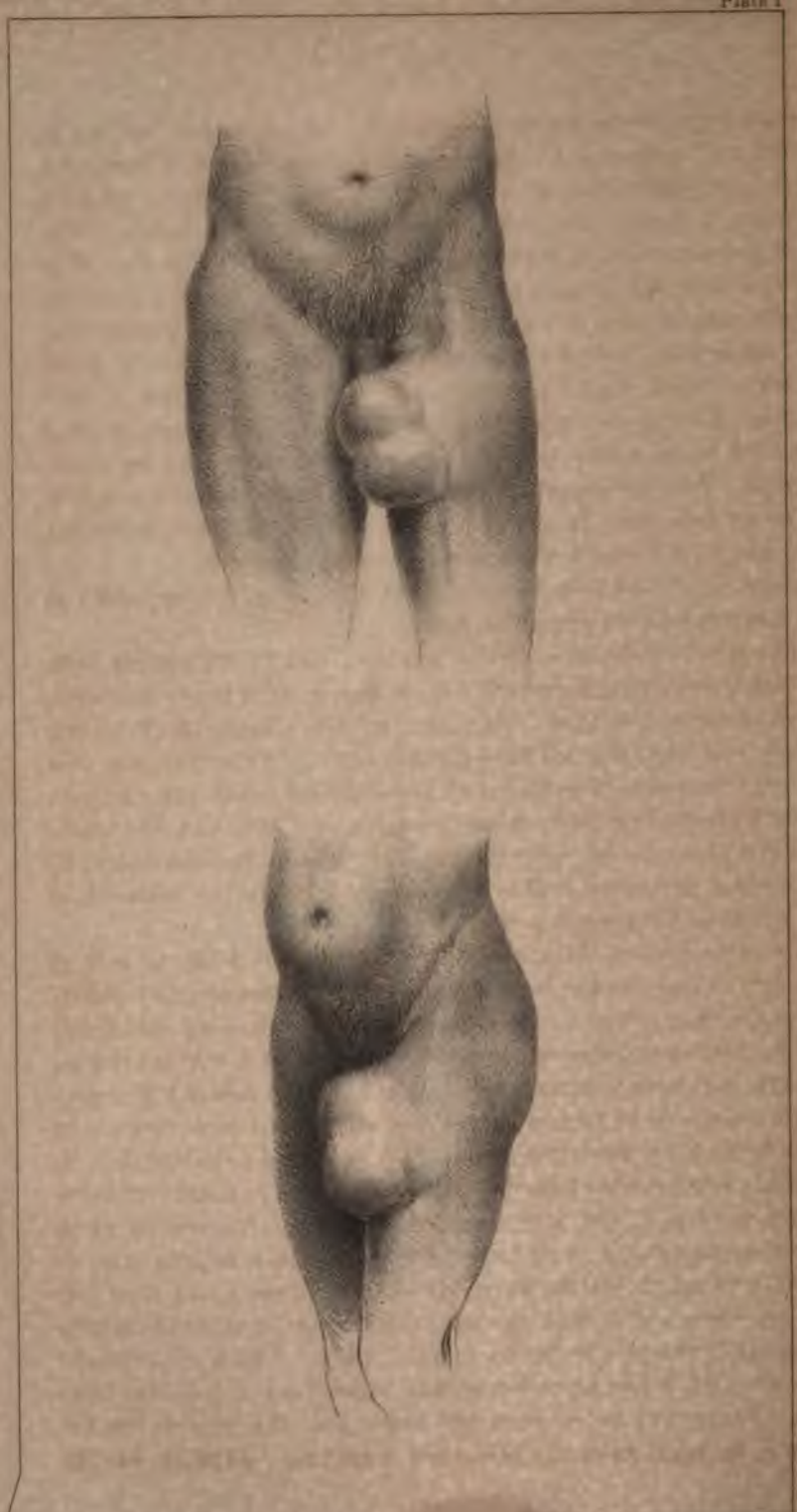
was inclined to pronounce in favor of its being an innocent growth. Although the results of the exploratory operations were kept in mind, still I was at first led to suspect liquid fluctuation, particularly in the outer and anterior portion of the tumor, which was beneath the fascia lata. The feel of fluctuation was puzzling enough, or rather the circumstance was puzzling, that the sensations communicated to the fingers could be anything else than those from liquid. Here, then, was the difficulty. But the different explorations by such eminent surgeons, thoroughly performed, so far as the ascertaining of a fluid was concerned, totally excluded its existence. I was then forced to infer and believe that the supposed feel of fluid was deceptive, and therefore gave it up. There was the strongest positive evidence against liquid. This was steadily kept in view afterwards, up to the time of the operation. If there was no liquid, then came the question, what could it be, that was so closely allied to the many usual symptoms where a fluid was present? What must be the diagnosis?

My reply was, that the case was somewhat involved in obscurity, but that after carefully studying it in all its bearings, I was strongly in favor of its being a fatty tumor, and the reasons for so thinking will be given in the differential diagnosis. Still, in reality, no decided or correct opinion could be given till an exploratory incision, carried down to the mass, fairly exposed some portion of it, with the opportunity of removing a small piece, and, if necessary, subjecting it immediately to the microscope. This would remove all uncertainty.

Anxious that such an interesting case should have all possible light thrown upon it, I asked him to visit the Hospital with me to see what a consultation of the surgeons would develope. The result was that all, with one exception, pronounced in favor of a fatty tumor.

The following opinions, as nearly as can be recollected, were expressed concerning it. That it was a soft tumor, without fluid, perhaps malignant, not fatty. Again, it was situated deep under the artery, and apparently as much on the outside as on the inside of the vessel. It might be connected with the periosteum. This is the place usually occupied by malignant growths. Considering the size of the tumor, three years seemed rapid for anything but a malignant growth. However, the non-enlargement of the glands, and the kindly healing up after exploration, seemed against its being malignant, as well as the absence of the enlarged superficial veins,

Plate 1



Lith. by J. Bufford

and the pulsation so common in encephaloid. It might possibly be an enchondromatous or a fibro-plastic growth ; and then again, fat often giving false fluctuation, it might be, in spite of the unusual position, a deep-seated fatty tumor underneath the fascia. The hard portions might be from the induration of fat by friction. Probably a deep-seated fatty tumor. Cutting down upon it advised. Again, that the danger was that it might be connected with the bone and malignant, while the hope was that it was fatty. At the same time that it felt, where it had come through the fascia, like a fatty tumor. Fatty, probably. Again, evidently not malignant, because it healed up so kindly, and because it was so movable and easily rotated. Non-malignant—a soft solid—no liquid contents. Advised an exploration. It was then urged that its kindness in healing was no proof absolute of its non-malignant character.

Plate No. I. will give a good idea of the tumor as it appeared at the consultation, on July 10th, 1855.

The result of the consultation was then told to the patient, who wished to defer an operation for the present, in order to transact some business matters at home. He then left for Cincinnati, promising to return in October, and have an operation. It was also told him that operative measures would be planned, and every step and precaution adopted previous to the operation, so that in case the tumor was found to be an innocent one, the primary incision might be sufficiently prolonged, and others made to facilitate the removal of the whole or the greater part of it.

He came back to the Hospital, October 15th, looking as well as last July. Says he has been well, generally speaking, only suffering occasionally from a little dyspepsia. The following additional and interesting statements were made in connection with the tumor, namely, that several months have always elapsed before any appreciable change in its size, and that within the last two months its growth has been much more rapid. With regard to its mobility, he says that when it was about the size of an orange, it would recede on compression, so as not to be grasped easily. It has grown more and more movable with its increase. With regard to pain, says, as before mentioned, that he has never had any in the tumor itself, but that sometimes, after walking especially, has had a slight uneasiness about the lower part of the back and left hip. This he describes as after all being a feeling of uneasiness, rather than of pain or soreness. There has never been any œdema of the limb below the growth, as might naturally have been expected. Appetite has al-

ways been good, and powers of digestion generally sufficiently active. Has had an occasional attack of "bilious diarrhœa," for which he took pil. hydrarg. p. r. n. Has been in the habit of walking about for two hours, every day or two, and says he comes back "pretty fresh." Declares laughingly, that the left is his best leg, especially as he is liable to occasional rheumatic attacks in his right one. Remarks that now and then he has fits of depression, nervousness and some mental anxiety.

Plate No. II. presents a good view of the increased growth of tumor, when the patient entered the Hospital, October 15th, 1855.

The tumor's relations, description and dimensions will be given as taken a few days before the operation. The situation was at the superior part of the thigh, occupying its anterior, internal and external aspects. Of its borders, the upper was well defined, about an inch below Poupart's ligament, passing from the tensor vaginæ femoris muscle inwards towards the gracilis; the lower was lost insensibly beneath the sartorius and rectus muscles at the middle of the thigh; the inner projected several inches beyond the normal outline of the thigh, irregular and movable; the outer pushed out the tensor vaginæ femoris, making the contour of the limb more than naturally convex.

The whole growth apparently proceeded from, and was connected with, the deep-seated point of origin, on the inner side of the femur, about two inches below the trochanter. The smaller half was deep seated; the larger half was superficial and projected beyond the normal outline of the thigh. Into these two portions it may be divided; the *superficial* forming the internal one, just beneath the skin, projecting several inches, with its free, cutaneous face divided into two large globular lobes, of the size of a fist, with these lobes subdivided into smaller flattened lobules, distinct and easy to enucleate. Most of the lobules were soft and elastic; one or two that were most exposed were a little harder than the others, perhaps from friction or inflammation induced by the operations. There was the cicatrix from the incision upon the upper rounded mass (see S), and from the trocar on the lower one (see lower M). One lobule in particular, underneath, was very movable and almost pendulous. There is a constricted portion or neck, where the growth pushes through the fascia. The whole mass was freely movable in every direction.

The *deep-seated* was beneath the fascia lata, femoral artery and vein, sartorius and rectus muscles and tensor vaginæ femoris, tense,

Plate 2

elastic to the touch, with a more suspicious feel of liquid fluctuation, and without the lobular feeling, as in the part that had escaped through the fascia after the incision. The whole anterior and external portion of the thigh seemed enlarged and swelled, with a more regular contour than the internal. On the external border was seen the cicatrix from the trocar. (See upper M.) During contraction the muscles were fully traced over the tumor. By slight pressure from the inside the tensor vaginæ femoris was made prominently convex. The femoral artery passed, for three or four inches, over the middle of the tumor, and from that point is gradually lost in the deep-seated parts. The maximum strength of pulsation was felt in the upper two thirds of the tumor, and ceased altogether in the lower third. The skin over all this region was natural in look and softness, and perfectly movable. The subcutaneous veins were enlarged and tortuous, over the free, projecting mass, but there was none of the fine, threadlike vascular redness, so common in advanced malignant affections.

There was no tenderness in any spot, on superficial or deep pressure, no enlargement of glands in groin or pelvis.

| | |
|---|---|
| Greatest circumference about largest part of the tumor, including thigh, | 37 inches. |
| At same point, on opposite thigh, | 26 " |
| Circumference of projection, | 13¾ " |
| Length of " | 8¼ " |
| Circumference of thigh, just below projection, | 23 " |

In making up the diagnosis of so large a tumor in the inguino-femoral region, particular reference will now be directed to the various conclusions of different surgeons, in regard to the indications or symptoms bearing upon *fluid*, *encephaloid*, *fatty tumor*, *fibro-plastic* and *vascular sarcoma*.

*Fluid—Multilocular Cysts.*—There appears no alternative but to exclude altogether the presence of fluid. Upon this point there has been a decided and positive proof that there was not any present, by surgeons eminent for their knowledge and experience, for their tact and thorough manipulation, for their surgical eye and touch. At first, so strong was the feeling to them that there must be a fluid, that operative measures were used by different instruments and in different situations, at intervals of time, by the trocar and canula, and by an incision three quarters of an inch in length, so that the finger was passed into the opening, the mass felt and pushed back. This supposed feel of fluid was probably much stronger before the

disease protruded to any extent through the fascia. The free, protruding, prominent portion on the inner side of the thigh felt elastic, of a consistency rather too firm for a fluid, and on pressure with the thumb and finger it would be said that the mass receded, slipped away, instead of giving the impression that the finger and thumb touched through an intervening sac but partially distended with fluid. On the outer and anterior portion, under the sartorius and rectus muscles and fascia, the feeling of deep liquid fluctuation was more strongly marked and deceptive. Here no lobules were felt. So the question and doubt were between elasticity and fluid. Besides, if there was a fluid, what was its nature and origin? There had been no symptom nor appearance whatever to refer it to any disease of the vertebræ or ilium, no symptom of articular trouble, no symptom of local inflammatory or traumatic affection, particularly such as to produce, if fluid, so multilocular a growth. The knowledge of all this, in spite of the puzzling feel transmitted to the fingers, together with the positive result of the operative proceedings, seemed to be a good and sufficient reason that fluid should be entirely excluded.

*Encephaloid.*—The history of the case is rather against it. Its slow, gradual growth of at least three and a half years, the non-enlargement of the neighboring glands, its free mobility, the non-incorporation of any of the surrounding tissues (a malignant mass of that size would in that period of time, in all probability, have involved the adjacent textures, and rendered all more adherent, less movable and circumscribed, and impeded muscular action, produced pain and swelling of the foot and leg, with other local symptoms), its freedom from any distinct, characteristic local pain, it being merely a feeling of weight and consequent uneasiness, and its dormant, torpid state after the exploratory operations. Though this circumstance, with its immediate cicatrization, and the mere enlargement of the superficial cutaneous veins, of themselves and alone do not amount to much of anything of value against its being encephaloid. To be sure, at some points the elastic feel so peculiar to encephaloid was observed, but not enough and of sufficient density to give to it a definite character. The lobules were too movable and floating, too easily traced to, as it were, a common base, and in fact the whole mass was not so heavy as an encephaloid growth would have been after it had reached that size. Then, also, there was no apparent inflammatory action about it, either externally or internally, no tenderness nor pain on pressure, or rotat-

ing it about. The increase of encephaloid growths is more steady and progressive, without the sudden starts and stationary intervening periods. As a general rule, encephaloid has a firmer, denser feeling than fatty swellings, and carries with it an idea of greater relative weight.

*Fatty Tumor.*—It will undoubtedly be conceded that the feel of fatty growths has been not unfrequently mistaken for fluid. At some periods of encephaloid affections, the feel resembling liquid fluctuation is certainly very strong. There are many cases of fatty tumor, in which by the mere touch, unaided by the sight or any previous history of the case, it is almost impossible o describe the minute shades of difference between soft elasticity and fluctuation of a fluid. In true elasticity there seems to be more of an idea of rolling about, displacement or receding to the touch, even when the substance is pretty firmly fixed ; in fluctuation, the diagnosis may be positive and quick where the fluid is circumscribed, but still not so clearly so in all cases of cysts. In common acute inflammatory abscesses, superficial and deep, with the fingers of both hands alternately applied, we easily feel the ends of the fingers rise up, rather than displaced laterally. In case of a cyst, however, the affair is more difficult and obscure, particularly if it is small. If there happens to be only a little fluid and with thick walls, or if the cyst is full, distended and tense, as in some hydroceles, then it is almost impossible to detect fluctuation, and we have rather a lateral displacement or receding, than a perpendicular rising up of the fingers, as where there is a clear case of fluid. In some given cases it is impossible to say whether fluctuation is present or not, though liquid may afterwards be found.

There may be liquid without fluctuation, and there does not appear to be any rule or tact that can decide as to its presence in all doubtful cases. Every surgeon will acknowledge that he has made mistakes in regard to fluctuation, and that in many instances fluctuation is as clear as the existence of a swelling, in others it is equally obscure and deceptive, and that many a swelling is cut into without the slightest suspicion of fluid, and *vice versa*. As there is liquid without fluctuation, so there may be fluctuation without liquid.

The peculiar feeling conveyed to the fingers which is called fluctuation, carries with it the idea of the presence of a liquid. This is correct in the vast majority of cases, and may be called liquid fluctuation in contra-distinction to the fluctuation found in the so-called soft solids, such as fatty tumors, erectile growths, certain

stages of encephaloid, and in the palm of the hand, palmar surface of the fingers, and on the back of the hand, towards the termination of long-continued suppurative cellular inflammation, when the thick, cuticular covering being removed, a soft, elastic, almost flabby state of the parts is exposed, giving the often deceptive feel of liquid beneath. The same feeling is observable, also, in large, extensive masses of not firm and pulpy granulations. The soft, elastic feeling from all these is at times so similar to the feeling of fluid, that the shades of difference cannot be noted, and a knife is plunged into them, to be followed only with blood. Fluctuation cannot be strictly limited only to liquids, though, as the term is usually employed, it implies the presence of some kind of fluid.

In the present case, there having been the strongest evidence against fluid, the feel of fluctuation, so deceptive to so many surgeons, must proceed from something else. There are many reasons for its being a fatty growth, namely: its distinctly multilobulated appearance, the different sizes and easy enucleation or separation of the lobules, its generally soft, elastic, yielding and receding feel, its comparative lightness, its perfect mobility laterally, longitudinally and up from the bone, its slow increase from the time when first noticed, the entire freedom from true pain (the feeling being rather a sense of dragging and inconvenience from its weight and size), its want of tenderness on pressure or handling, the absence of any inguinal or pelvic glandular disturbance and enlargement, the circumstance of its being uninfluenced by the many manipulations and operative measures upon it, and the entire freedom from any local disturbance, as there was no change in the nervous, circulatory or muscular functions of the part, nor in the abdominal viscera.

These facts, taken separately and collectively, led to the conclusion that it was not malignant but innocent, and if innocent the chances seemed to incline most strongly on the side of a fatty tumor to the exclusion of others.

To be sure, at first view, the region and its deep-seated origin would be rather opposed to the idea that it might be fatty. And, indeed, it was objected to its being a fatty tumor, that it was no place for one, that its original seat was too deep. To this it will be a sufficient answer to say, that where there is adipose tissue there may be adipose disease or hypertrophy, and that a fatty tumor *may* appear in any locality, superficial or deep, where fat is, provided that the condition or conditions favorable to its origin and growth are the same; although it will be allowed by all, that there are

particular localities, where we more usually and frequently find them.

*Fibro-plastic.*—It may be stated that, in all probability if it were a fibro-plastic growth, of over three years' duration, it would have been more adherent to some of the adjacent parts, bone or muscle, and in this region not so movable, not so distinctly lobulated nor so separable. The lobules would not be so movable and yielding, but firm and rather like the tubera of potatoes, but not so closely packed and grapelike as in large glandular tumors. Again, the feel would be rather of a harder, firmer mass, perhaps intermediate between a scirrhous hardness, and a soft, yielding solid and liquid, and without that suspicious feel of fluctuation from a liquid, though liquid may be found occasionally in some fibro-plastic masses, as in scirrhous and encephaloid affections. The general character of the swelling seemed against its being fibro-plastic, which would be not so hard as a scirrhus, but harder than fat and less yielding. The sensation was of the soft, elastic, fatty feel, rather than the harder, firmer one of fibro-plastic. The lobules were separately movable, distinct and easily enucleated, whereas the prominences, bosselations or tubera of fibro-plastic growths would not move without the whole mass moving with them.

*Vascular Sarcoma.*—This was entirely excluded, as there were none of its appropriate symptoms present.

Neither glandular disease, enchondroma nor osteo-sarcoma had any bearing upon the case.

October 17th.—Called to see patient this evening, and found him comfortable, reading Burton's Anatomy of Melancholy. This is the record made at the time, and may have an interesting connection with the unfortunate result to the patient.

18th.—A second consultation was held this morning, and the following are some of the opinions expressed; that it felt much more like fluid than it did (all the remarks have reference to the free, projecting, inner portion of the tumor); it being examined with a lamp, after the manner of a hydrocele, there seemed to be no translucency at any part, though at first it was thought there was; and that if it contained any fluid, it was not a clear, but an opaque, possibly a sanguinolent liquid; that the feel was as of a bladder blown up with air, or as if it was a spongy tissue, not erectile and filled with fluid; if a fibro-plastic tumor, perhaps adherent to the muscles; its adherence to the bone doubtful, possibly adherent to the capsular ligament. Its being a fatty tumor did not exclude all idea of its

fluidity, inasmuch as a fatty tumor has sometimes a cyst containing oil within it. History and feel of the tumor against its being encephaloid. On the whole, if diagnosis was compulsory, should say, *fluid* contents.

Others thought the lobules much more distinct, and that the indications were stronger for a fatty tumor than at any previous time.

Oct. 20th, 11, A. M.—This morning the patient walked up to the operating room, with the most perfect apparent calmness and resolution, as if the tumor was a perfectly simple one, and as if the operation must be entirely successful. He was always confident that it could be removed.

*Operation.*—The patient being fully etherized, an incision about three inches in length was made along the free border of the projecting mass to the inside of the femoral vessels, and carried immediately down to the tumor. The first appearance of the lobular mass, when exposed, was rather equivocal and unpromising, looking at one spot somewhat like encephaloid, at another like fibroplastic. On continuing the incision deeper, some clear yellow lobules were turned out, which left no doubt of the fatty nature of the tumor. The primary incision was then prolonged from each extremity, so that it was twelve inches or more in extent, as is represented in the plate by dotted lines. The fascia lata was then freely divided, and the hand of an assistant was passed in under it so as to raise up the femoral vessels and anterior flap. But little cutting was done, and the whole mass was removed much more easily than was expected, inasmuch as it was at first thought that another opening in the external aspect of the limb might be required. Much less bleeding occurred than was looked for. The growth almost surrounded the bone, but it was easily separated. A few arterial branches were tied, and the flaps were placed in apposition without sutures, and a water dressing covered with oiled silk was applied to the wound. The weight of the tumor was within a small fraction of *six pounds.*

7½, P. M.—Patient much less calm than was expected from his previous deportment. Inclined to toss about, and begs for something to still his nerves, or "else he shall go crazy." R. Elix. opii, gtt. xxx., by house-surgeon.

21st.—Says he passed a miserable night. Reports that he cannot take opium. Does not complain of any pain or soreness in wound. No inflammation present. From being perfectly calm and resolute before the operation, he is now fidgety, nervous and com-

plains like a child. Everything goes wrong with him and around him Thin white coat on tongue. Pulse 98. Hands rather hot. R. Pil. hydrarg., gr. x., ft. pil. No. 2. R. Inf. humuli, inf. absinth., āā p. æ. M. For drink. R. Liq. ammon. acetat., spir. æth. nit., æth. chloric, tinct. humuli., āā p. æ. M. ʒss. every three hours.

22d.—Says he feels generally better. Pulse slower. Hands comfortably cool. No pain whatever in wound. Some inflammation and some appearance of sloughing of cellular membrane. Has some uneasiness in epigastric region, with slight pain.

23d.—Very restless during night. No inflammatory redness, but some swelling about wound. Complains of everything he puts into his stomach. Says he cannot bear anodynes of any kind, that they will kill him.

24th.—Seems as if the patient's nervous system was completely unstrung. Rested poorly. Pulse not so good. Vomited this morning, and complains that everything pains him that he takes in the way of nourishment. Was obliged to omit stimulants. Brandy disagreed with him, and "whiskey burned him like melted lead." Complained of acidity of stomach. Different antacids were tried without effect. Abhors all nourishment but gruel or arrowroot.

25th.—Some granulations along the borders of the wound. Discharge somewhat offensive. Is using a charcoal poultice. Declares positively "that he will not take any more nourishment by the mouth, for it is just murdering him."

28th.—No change in his nervousness till to-day. Nothing seems to suit him. Has tried almost everything in the way of an anodyne, by the mouth and rectum. Beef tea, arrowroot and gruel have been given by the rectum, but they all distress his stomach. No tonic can be borne. Granulations healthier and firmer. Discharge not great. Feels stronger this morning. Asks for, and may have, a bedchair with arms, and sit up a little.

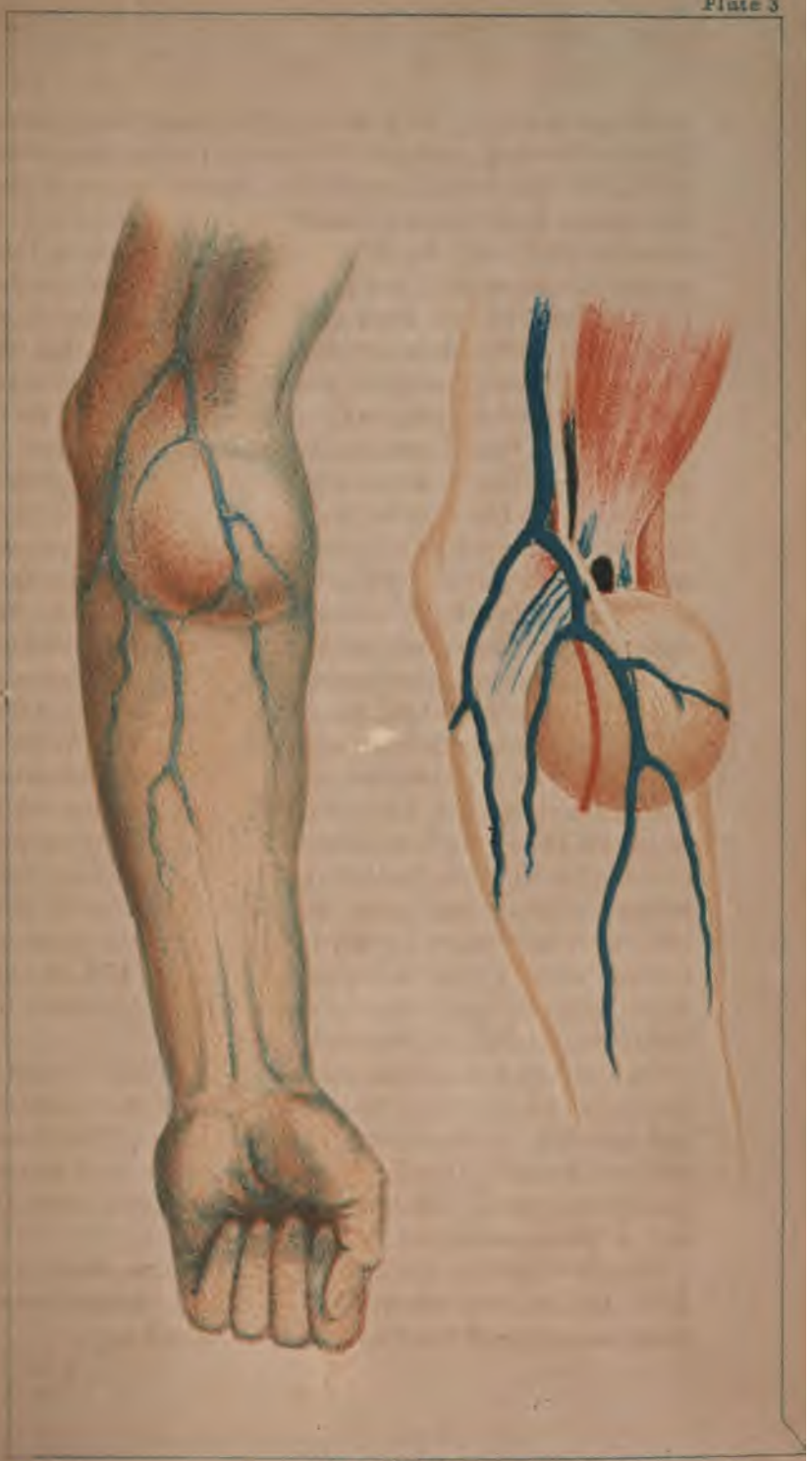
29th.—Feels better, with the exception of pain in the left knee, which is swollen, and evidently fluctuating beneath the patella. No apparent inflammation. Flaxseed poultice was applied, and, on calling to see him, about 5, P. M., the patient remarked that the poultice on the thigh was "drawing finely." Swelling of the knee had disappeared entirely. On looking at the thigh, it was found that instead of the poultice drawing finely, a venous hæmorrhage had taken place. The wound was examined; no open vessel could be found, and a sponge was inserted between the flaps and retained by slight compression. Directions were given in case of a return

of the hæmorrhage. Very shortly afterwards, the house-surgeon found the bleeding continued, apparently coming from underneath the upper flap, far in towards the external aspect of the limb. The sponge, compress and bandage were re-adjusted. I saw the patient at 10, P. M.; found his pulse not so weak as expected; gave him some whiskey, and applied tannin with the sponge, without any good effect. Then resorted to the perchloride of iron, which seemed to produce a powerful styptic effect. The bleeding stopped. Whiskey being administered to him, a special watch was left to keep the wound constantly in view. His brother also watched with him. Patient was seen feeling his pulse at his wrist, and I told him he had better not do that. Passing to the opposite side of the room, I saw him with his finger near the inner condyle of the left arm, and heard him ask the house-surgeon if that was an artery there. Patient was perfectly calm and rational. This was about one o'clock. Two hours afterwards, the house-surgeon was suddenly called to the patient, and found that he had inflicted a wound with a small penknife (having first asked the watch to sit at the foot of the bed, as it made him nervous to see him so near), a little over an inch in length, on the inner aspect of bend of the left elbow, being the point spoken of to the house-surgeon. From this he was bleeding, though not profusely. Endeavors were made to arrest the hæmorrhage, but the patient resisted them in every way, tossing about, uncovering himself when blankets were placed upon him, and finally setting the hæmorrhage going again in the thigh. As he refused all stimulants, and almost literally fought against the house-surgeon, nothing could be done of any avail. At about 4, A. M., he died. It was impossible to determine the amount of blood lost from the arm, from the thigh it was considerable.

On a *post-mortem* examination, the deep brachial vein and median nerve were found to have been severed, while the brachial artery and superficial veins and nerves were uninjured. The stomach was perfectly healthy. The femoral artery and vein were also perfectly healthy throughout. No open vessel was found to account for the seat of the hæmorrhage.

Since his death it has been ascertained that, while in Italy, in 1851, he was very frequently of a taciturn, melancholic turn of mind, and even exhibited a strong suicidal tendency.

Plate 3



J. Stafford Lith.

CASE II.—CYSTIC TUMOR OF THE FORE-ARM.

JOHN W. R——, aged 23 years, a farmer, was admitted into the Hospital, Oct. 23d, 1855, for a tumor at the bend of the left elbow. He states that eight years since, he had an attack of erysipelas, and after recovering from it noticed, for the first time, a little "kernel" about the size of a common hickory nut, in the bend of the left elbow or very little below it. It was entirely painless, and of the same color as the surrounding skin. He had no notion what it was, nor did he perceive any increase of size in it till about one year ago last August, when he strained his arm while unloading some hay. Within a week after this, the whole arm swelled, from the bend of the elbow to the hand, especially on its anterior surface. It pained him a good deal for a day or two, and then, without any suppuration, the redness, swelling, heat and pain all subsided. Immediately upon their entire subsidence, the "kernel," which had been lost sight of in the general swelling, re-appeared, and he seems quite certain that it was of its present size. Nothing more than a painful uneasiness has at any period been felt in it. Three months since, it was shown to his family physician, who seemed, upon an examination, to fear an aneurism. The patient looked robust and healthy.

The measurement now around the most prominent portion of the tumor, including the arm, is 13¼ inches; around the other arm, at the same place, 10½ inches. The skin over the tumor is perfectly natural in color, soft, and freely movable in every direction. The tumor itself was pretty movable in mass, laterally, but the attachments of its under surface allowed it to be raised up but very slightly. It was elastic, very firm to the feel, without any general pulsation (the ulnar artery passed over it) or any perceptible fluctuation from liquid. Its outline was perfectly uniform, and there was nothing whatever of a lobulated feel, but a density and elasticity that induced the suspicion that the growth was fibro-plastic. There was an artery pulsating over the ulnar aspect of the tumor. The tendinous expansion from the biceps muscle was found to spread over the inner portion of the tumor, and on tying a handkerchief around the upper arm, the superficial veins were seen passing over the growth, as represented in Plate III. The internal cutaneous nerve was felt just outside of the vein.

*Operation.*—The patient being fully etherized, a broad band was passed around the arm above the elbow, and drawn tight enough to distend the superficial veins running over the tumor, so that they

might be avoided in the incision, which commenced just below the bend of the elbow and was prolonged downwards four inches in the median line. This incision divided only the skin. The larger veins being now prominent and fully exposed, the superficial fascia was cut through to an equal extent, and, with the veins, kept on each side by flattened spatulas. The band around the arm was loosened after the veins were thus protected. From the very free and almost rolling motion of the mass, it was anticipated that it would be enucleated without much difficulty. But upon making a free incision through the deep fascia, the muscular and cellular tissue was found to be so consolidated and indurated, that a careful and slow dissection was necessary to remove the inflammatory adhesions and deposit from the proper investment of tumor. After it was exposed as fully as circumstances would permit, a passing examination gave no reason to change the diagnosis, for it felt hard, rough, elastic, too firm and regular for a fatty growth, but not too much so for a fibro-plastic. Being liberated on its anterior and lateral faces, nothing remained but to remove the attachments along the under surface. These seemed to be firmly incorporated with the surrounding structures, muscle and bone, and great difficulty was experienced in the dissection. No regular layer could be found, all was rough and consolidated, and while removing portions of its fibrous investment, by chipping instead of free and long incisions, a small quantity of thin, yellowish, semi-opaque fluid was seen to issue from a minute point, and on further examination a probe was introduced through it to the extent of two inches. A free incision was then made through the thick, tough walls of the cyst, and about two ounces of the above-described fluid escaped. When the fluid was all removed, a small scale-like piece of bone, flat and rough along its edges, one and a half inches long, and one third of an inch wide, was found in the deepest part of the cyst, wholly detached and free. There was no indication where this piece of bone came from, nor could any denuded bone be touched. The cyst here was very adherent to the ulna, and could not be entirely dissected off. Its walls throughout were firm, hard, three quarters of an inch thick, and on its inner surface were what proved to be two or three shining beds of cholesterine. The greater portion of the cyst was then removed, and a sponge was deeply inserted in the cavity, to keep apart the edges of the wound. During the operation it was necessary to ligature some veins and some small arteries. Compress in cold water with a bandage loosely applied.

The following is the analysis of the fluid contents by Dr. Bacon.

"This is serous fluid, straw-colored, turbid and somewhat viscid. Reaction neutral. Density 1.024. It contains a small deposit of crystals of cholesterine, and globules resembling those of pus, and probably identical with them. These substances are diffused through the fluid and occasion its turbidness. The fluid contains a large amount of albumen."

Oct. 26th.—Wound discharges freely. Sponge came away, together with the remainder of cyst's wall. No pain. Very slight redness.

Nov. 9th.—Doing well. Wound contracting gradually, and cicatrizing firmly along its edges.

20th.—Discharged well.

CASE III.—ENCEPHALOID DISEASE OF THE THIGH.

Mr. James White A——, aged 23, states that he has suffered more or less pain in the right thigh near the groin, ever since he commenced life as a sailor at the age of 13. At 19, while on the night watch, remembers that he could not sit comfortably, that he became quickly fatigued, and on account of uneasy sensations frequently stretched himself and laid down. Came home here three years ago last September, arriving just after a severe struggle with the captain. In February, 1853, he went to Australia as passenger, and entered into business which required no manual labor. At this time the pain was quite severe. In a short period, he went to the mines, suffered many hardships, all of which seemed to aggravate the pain. A little over a year ago he went to Calcutta, and at first acted as clerk there, but was soon obliged to put himself under a physician, as the pain was so great that he could not walk. The existence of any swelling was first observed just previous to his departure for Calcutta. From that time the swelling and pain increased, till he reached home, December 8th, 1855. The pain has been very intense and acute, keeping him awake nights, and rendering necessary a constant resort to strong opiates. His expression was that he was always in torture, so sharp and distending was the pain. On the 12th of December, 1855, when I saw him for the first time, he was in a thin, emaciated condition, with a look as if he had undergone great suffering. He said, "if you will only relieve me of pain, so that I can get some sleep, I shall do well enough, for in the intervals, when I am free from pain, I feel as well and as strong as at any period of my life." His appetite was very

good, his digestive powers but slightly affected, and his bowels were more regular than would have been expected after the large quantity of opiates that had been taken. His pulse was sufficiently strong, being momentarily increased during the paroxysms of pain. His spirits were cheerful and hopeful, as at Calcutta his attending surgeon had pronounced it a collection of matter which it would be imprudent to meddle with during the hot season, and advised a return home. He came home for an operation.

On examining his right thigh, it was found to be much enlarged at its upper and inner part, commencing at Poupart's ligament and extending downwards six inches or more. There was no discoloration of the skin nor prominences, nor any unnatural heat. To the touch, the limit of the swelling could be pretty well defined, though not ending abruptly. The femoral artery and vein passed over its outer aspect; the superficial veins were not distended or tortuous. Pressure of the hand and fingers during the examination, was not at the time painful nor productive of any ill result. As the swelling occupied more than one half of the thigh, the four fingers of each hand were alternately applied in order to ascertain its consistency and nature. It was pretty thoroughly made out to be smooth, regular, and not lobulated nor bosselated, yielding, neither hard nor soft, but intermediate between the two; of such a consistency as to perplex, at each manipulation, the feeling whether it was a soft solid or liquid. The muscles were not in a state of tension, though the mass was evidently beneath the adductors and deep seated. There was no mobility in any direction. A slight pressure gave the idea of the elastic, almost spongy, feel of encephaloid, whereas a hard, deep pressure pretty evidently indicated fluctuation from a liquid. In this dilemma it was almost impossible to declare, with certainty, what it was, solid or liquid. If solid, its history, its growth, the pain, though not distinctive, and elasticity, would lead prominently to the opinion of encephaloid; if liquid, the question would arise as to its nature, whether pus, blood or serum. As to blood or serum, there was nothing in the history or progress of the disease that would seem to indicate that it was either. As to pus, to be sure this region is frequently the seat of purulent deposit, proceeding from some affection about the hip-joint, ilium or vertebræ; but the antecedent history, symptoms and a careful examination of the parts, excluded any osseous trouble. In case of any sudden inflammatory action with a secretion of pus, some external manifestation of it would have been early apparent.

As the excessive pain was depriving him of comfort, strength and health, he begged for an operation of some kind to relieve him. After expressing to him the doubts and difficulties in the way of the diagnosis, a consultation was held with Dr. Lewis, and an exploratory operation was recommended. Accordingly, on the 19th of December, a small trocar and canula was plunged into the spot where fluctuation seemed to be the most evident. On withdrawing the trocar, there was a free discharge of a thin, transparent, orange-colored fluid. When it had ceased running, a probe was introduced through the canula nearly its whole extent, and passed easily in every direction around a cavity which must have been at least four inches in diameter. Nothing came away but this liquid, which was found to be serum and albumen. The general swelling subsided considerably, so that the skin fell in wrinkles. From this anticipating a favorable result, it was proposed to continue the exploration by cutting down upon it, and proceeding as circumstances would warrant. The patient wished to defer it a day or two. The pain was much diminished. On the 21st of December, an incision was carried through the point punctured, on the inside over the adductors. The muscles were found thin and expanded, and on separating and dividing them, a suspicious tissue was revealed, which, on further examination, proved to be unmistakable encephaloid, about an inch in thickness, with the large aforesaid central cavity. Of course all further proceedings were abandoned.

In a few days the patient sensibly failed, the debris of encephaloid tissue were discharged in lumps from the wound, and on the 29th of December he died.

### CASE IV.—VENOUS ERECTILE TUMOR OF THE FORE-ARM.

Victorine F——, aged 25, a member of the ballet corps of the Ravel Troupe, consulted me in June, 1855, for a swelling on the right fore-arm, just below the bend of the elbow. As to its history, she thinks that it originated some two or three years ago, after long-continued efforts in her daily exercises. A snap or tearing was felt at the time, which occasioned some soreness and swelling. The soreness soon subsided, but the swelling never entirely disappeared. Nothing particular was at that time thought of it. After a while, as she was of an attenuated figure and her arm was small and thin, her attention was constantly drawn to the swelling, which had somewhat increased and produced quite an observable deformity. Becoming alarmed, she consulted a medical friend, but nothing de-

cided was told her till a little over a year ago, when, being in Paris, she got the opinion of three or four of the most eminent surgeons. At that time the swelling was very nearly its present size. The change was so gradual, that no appreciable alteration could be detected except after long intervals. There was a perfect concurrence of opinion as to the nature of the tumor, and various remedies and external applications were recommended. Singular enough, no mention was made of an operation. The prescriptions of the different surgeons were shown to me, and the name given to the tumor by all of them was lipoma, fatty tumor. She did not think there had been any increase of growth for the last six months.

On examination, a small, movable, painless mass, about the size of an English walnut, was found just below the bend of the right elbow, in the depression between the pronator radii teres and supinator longus muscles. Such a free, rolling motion could be given to it in every direction, that it really appeared without any attachment. It was of a soft, elastic, yielding, slippery feel. The skin over and around it was entirely natural. No hesitation was made in pronouncing it a fatty tumor and nothing else. A day before the operation, the remark was made that it was sometimes larger than at present, particularly after any violent and long-continued exercise. Hearing this, measures were immediately used to detect, if possible, any change in its size by pressure on the brachial artery, on the veins at the bend of the elbow, and on the swelling itself. But no alteration could in any way be found, nor was there any indication, from the symptoms that were present, that any of the bloodvessels were involved. Accordingly, my diagnosis coincided with that of the Paris surgeons, and I represented to her that an operation for its removal would be perfectly simple and safe. Previous to the operation, the patient consulted another surgeon, who immediately said that it was a fatty tumor, and if left to itself would probably grow to the size of a child's head. An operation was instantly advised. On the morning of the operation, two other surgeons examined it, and said there was not the least doubt but that it was fat.

*Operation by excision.*—An incision about three inches long was made through the skin and superficial fascia over the swelling, when some bluish, knobby, irregular masses were seen, which immediately indicated a varicose and tortuous condition of the veins. The movable, rolling mass was composed of clusters of distended veins, which were supplied by some deep-seated branches. Pressure

was made upon it, but no diminution was perceptible. In the course of the dissection, some veins required ligatures, and it was then seen that the knobby prominences were mostly filled with a semi-liquid coagulum, which of course prevented any emptying of the vessels. Between, and connecting these veins, was some fat, which gave to the whole the feel of a smooth, regular swelling. At their base was found nothing but cavernous or erectile tissue, which bled freely on being cut into. The incision was then carried beyond this tissue in every direction, the whole mass removed, and ligatures were applied to the deep communicating branches. The wound was then brought together, and cold water dressings and easy compression were applied. No accident occurred afterwards, and in about ten days there was entire cicatrization.

Here an error of diagnosis was made by all the surgeons. All pronounced it a fatty tumor, and so unhesitatingly that no mention was made of anything else. No one saw or felt any symptom that indicated a vascular trouble. The soft, rolling, elastic, compressible feel gave an immediate impression of a fatty tumor. It has been noticed above, that when the varicose, knobby veins were fully exposed in the course of the operation, no diminution in size was perceptible on pressure, the cause of which was readily traceable to the semi-liquid coagula and fat. There was an intermingling of the so-called erectile or cavernous tissue, semi-liquid coagula and fat, which, under the circumstances, were sufficient to mislead the nicest discrimination. There was not liquid enough to give a fluctuating character to the swelling, but the peculiar, elastic softness appeared to justify the opinion of its fatty nature. The lateral and rolling motion seemed altogether too extensive for a subcutaneous venous erectile growth.

The peculiar spongy feel of erectile tissue is more closely allied to the feel of fatty growths than of fluctuation, or perhaps more truly it is an intermediate step between liquid fluctuation and soft elasticity. A case is rendered still more obscure if the erectile mass is of any extent, and in a person with the adipose element pretty well developed and interspersed with it. It will then be almost impossible to decide which tissue predominates, or which it is, if the cutaneous veins do not render the one suspicious. In some nice cases we cannot discriminate between spongy, yielding, liquid fluctuation and true soft elasticity. Instances of erectile tissue with a clearly lobular character are indeed rare, and there are instances of fatty tumors of considerable size, of a flattened elongated form, des-

titute of lobules and bordered with merely a fringed edge. The mistake of one for the other may be easy. We have seen tumors of erectile tissue taken for fatty tumors, where the skin was perfectly natural in color and feel, and *vice versa* as in the above case.

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NOTE.—It is a pleasant duty to acknowledge my indebtedness to L. M. Sargent, Jr., my valuable house-surgeon. He was always at his post, trustworthy, attentive and working with a cheerful will. In Case No. I. he was particularly untiring in his efforts to relieve suffering.

My own notes, with extracts from his Hospital Records, make up Cases I. and II. Case No. III. had the benefit of his careful watchings. The plates are also from his hand. They need no praise from me, as they will speak for themselves.

# INFLAMMATION AND ABSCESSES OF THE LUNG

CAUSED BY

# CLOSURE OF THE PRIMARY BRONCHUS.

BY CALVIN ELLIS, M. D.

Communicated to the Boston Society for Medical Improvement, Sept. 8th, 1856.

On February 29th, 1856, an intemperate woman was brought to the Massachusetts General Hospital, with a fracture of the left tibia and fibula, and a great effusion of blood into the thigh. With the exception of a tendency to delirium tremens, nothing remarkable occurred, until March 17th, when she was reported to have coughed much in the night. On the following day, dulness and bronchial respiration were detected in front, over the left side of the chest. The tongue was brown, dry and cracked. Pulse 80. On the 19th, the physical signs remained the same, and the patient declared that the expectoration had been of a reddish color, but nothing of the kind was seen by the nurse or house-surgeon. Its appearance was not at this time, nor afterwards, in any way remarkable. On March 27th, the upper part of the left side of the chest, as she lay in bed, was more resonant, but on sitting up the dulness became universal. The prostration at first was such that the back could not be examined, but bronchophony was now heard in the upper part, where there was an absence of fremitus. On June 24th, the resonance was reported as much more marked in the left side of the chest. Here the record of the physical signs ceased. The cough in the mean time had been occasionally troublesome, but was not generally so. During two or three days, in the early part

of April, there was considerable heat of the skin, and the patient was, a number of times afterwards, troubled with profuse perspiration. The pulse generally varied from 82 to 96. Pain was several times complained of in the lower part of the left chest, but, judging from the record, this was neither a prominent nor frequent symptom.

From the first the debility was marked, but, as the fractured bones united, she was able to move about on crutches. On June 29th, however, the pulse became quick, the perspiration profuse, and she was confined to her bed. On the 30th of August she was able to sit up, but on Sept. 5th there was a marked loss of strength and appetite. On the 7th, she had a violent paroxysm of cough, raised herself in bed, expectorated two ounces of blood, and then expired, her mouth being filled with a dark, dirty fluid.

*Autopsy*, 11 hours after death. The *dura mater* was flaccid. Attached to, but easily separable from, the under surface of that portion covering the convexity of the brain, was a pretty firm, yellowish-white, semi-gelatinous layer, about a line in thickness. There was more serum than usual beneath the arachnoid. The substance of the *brain* was rather soft.

The upper and posterior part of the *left lung* was firmly adherent to the parietes, the uniting membrane being very old and strong. The remaining cavity was lined with an old, thick, irregular false membrane, within which were found three pints of pus. Floating in this were a number of long cylindrical coagula, evidently recent, and moulded in some narrow passage. Several of these were also found hanging from openings in the false membrane, through one of which a probe passed into a cavity in the lung, to be described hereafter. The *arch of the aorta* was considerably dilated. In the descending portion was an abrupt aneurismal dilatation, perhaps two inches in diameter, with a smooth, well-defined mouth of about half that size. At the bottom of the sac was an opening through which a probe passed into the left primary bronchus, at a point between two and three inches from the bifurcation of the trachea. Above the opening was an old pale-red coagulum, which had apparently closed the passage, but the blood from the ruptured aneurism had forced its way into the trachea. The *bronchi* contained many coagula, and much dirty brownish fluid. The *lung* was but five inches in length. Scattered throughout its substance were cavities from three lines to an inch in diameter, communicating freely with the bronchi, with the mucous membrane of which their rough,

ragged walls were continuous. They also contained much dirty-brownish fluid and coagula. The intervening substance was quite firm, and of a dark-gray color, looking very much like pumice-stone. There was no tuberculous disease; no pneumonia; no gangrenous odor. It was evident that the coagula found in the pleural cavity had the same source as those in the air passages.

Two ounces of serum existed in the *right pleural cavity*. The *right lung* was very large and fully distended with air. In its substance were many bloody spots, evidently owing to the entrance of blood into the bronchi. The *pericardium* contained about two ounces of whitish serum. The *heart* was flaccid. Blood thin.

There was one pint of serum in the *peritoneal cavity*. The *arch of the colon* was adherent to the parietes.

The *spleen* was of large size; weight, 10½ ounces.

The *kidneys* were large.

The condition of the lung was considered very interesting in connection with the closure of the primary bronchus. It may, however, be maintained that, as the rupture took place below the coagulum and was followed by hæmoptysis, there could not have been complete closure; but it is evident that the blood forced its way beyond the obstruction, at the time of the accident, as it was only after this that the mouth was filled with the dirty fluid, found in such abundance throughout the lung. Nor is the existence of bronchial respiration incompatible with complete closure, for it is well known that sounds formed in one side of the chest may be heard in the other, and the dense tissue of the left lung might readily transmit a sound formed in the lower part of the trachea or right primary bronchus.

The appearances, in this case, recalled a similar one, seen a number of years since. The examination was made by Dr. J. B. S. Jackson, to whom I am indebted for the following facts.

The patient was perfectly healthy before his last illness, and was engaged in active business, in which he had exerted himself more than usual. While in California, in the latter part of May, 1848, he went to bed as well as usual, and awoke in the morning with dyspnœa and a sense of oppression about the upper part of the sternum, symptoms which never afterwards disappeared. On Dec. 10th, he returned to Boston, having borne the journey across the Isthmus pretty well, though much reduced in general health. Examined three days afterwards, the pulsations of the heart were felt more towards

the right side than usual. The pulse was the same in both wrists. A pulsating tumor or fulness was found about the cartilage of the second left rib, where there was dulness on percussion. The respiration was feeble over the whole of the left side of the chest, and a click was heard in forced inspiration.

During the last three months of his life he was confined to his bed, lying most easily on his back, the dyspnœa not being urgent, though increased if he sat up in bed. Through the winter, there was a slight cough, attended by a little frothy expectoration.

Five weeks before his death he suddenly raised half a pint of pus, and from that time expectorated the same copiously. He would sometimes speak of oppression in his chest, turn upon the right side, expectorate a large quantity of pus, obtain relief, turn back and go to sleep. The tumor about the second rib disappeared after the pus was first raised, and never returned.

Two weeks before death an abscess pointed, not far from the outside of the left nipple. On the following day it was punctured, and about a quart of offensive pus discharged. The expectoration then ceased. Finally, on the 6th of April, 1849, after being raised in bed by an assistant, he expectorated a little blood, a gurgling was felt in his chest, and he expired; two or three ounces of fresh, frothy blood flowing from the external opening.

At the examination, the body was found much emaciated.

Rising from the arch of the aorta, and involving the whole circumference with the exception of a strip, perhaps three fourths of an inch wide, from which the pervious brachio-cephalic trunks arose, was a rounded aneurismal tumor, of the size of an orange. Its cavity was filled with fibrine, whitish, in layers and rather soft. The parietes of the sac were, in some parts, continuous with those of the aorta, and contained many patches, presenting the same appearance as the wall of the vessel itself. In some places the parietes were entirely destroyed, and, where the sac approached the left primary bronchus, it had sloughed, or was about sloughing, to the extent, perhaps, of three fourths of an inch.

The right branch of the *pulmonary artery* was much compressed.

The *left lung* was the seat of an abscess extending from the apex to the base, containing a thick and rather bloody fluid. What little remained of the lung consisted of a solid, crumbling, gray substance, projecting most irregularly into the cavity of the abscess. There was no gangrene, nor any offensive odor. The pleural cavity was entirely obliterated.

The *left primary bronchus* must have been pushed back, as it was cut into during the removal of the œsophagus. The parietes were soft and discolored, and the cartilaginous rings to a considerable extent detached, standing up like the ribs of a boiled fish. The lower portion of the trachea was of a deep-red color, and the seat of what appeared to be minute ulcers.

In the *right pleural cavity* were about three pints of fluid. The lung contained a few gray granulations in the upper half, but was in other respects healthy.

The other organs were not remarkable.

In remarks appended to this case, the peculiar condition of the lung and its connection with closure of the bronchus, are particularly alluded to by Dr. Jackson, who refers to a similar case which occurred in the Hospital many years before, an account of which we here subjoin.

A man 30 years of age entered the Massachusetts General Hospital on July 25th, 1835. Five months before, he was attacked, while in Liverpool, with severe pain in the abdomen, which lasted for three months. A fortnight after its disappearance, while on his way to this country, he was again seized with severe pain in the epigastrium, which continued until he entered the Hospital, and was then accompanied by tenderness on pressure. For a month, he had been troubled with a dry, harassing cough, by which the pain was increased. Much heat in the night, but no chills. No appetite. He was obliged to give up work on July 19th, and never resumed it.

When first examined, there was a sibilant râle in both backs, and several days after, a strong mucous râle in the trachea; but the physical signs reported during a number of weeks were so variable and contradictory, that it was thought best to omit them. As early as August 10th, however, the respiratory murmur was much louder in the right side than in the left. On Sept. 2d, the lateral part of the left chest was more resonant than the corresponding portion of the right, but, behind, the lower part of the left back was less resonant than that of the right. On Sept. 10th, there was dulness on percussion over the whole of the left back, while the resonance over the right back was good. On forced inspiration, the murmur was distinct over the left side. On Oct. 3d, the left side of the chest was perfectly flat on percussion, with the exception of the axillary re-

gion, where there was slight resonance. The two sides of the chest presented the same appearance, with the exception of a little variation, incidental to a slight lateral curvature of the spine. On Oct. 23d, the respiratory murmur in the upper part of the left back, near the spine, was as strong as on the opposite side, and somewhat coarse, but was, elsewhere, inaudible. When lying on his back, the respiration was quite audible above the nipple, with bronchial respiration, particularly at the upper and inner parts; slightly audible, also, at the lower part, but not at all decided. The left side of the chest was at this time the smallest, measuring, just below the mamma, one fourth of an inch less than the right; while lower down, the difference was a little more marked. On Nov. 16th, however, the left side appeared to be enlarged, and the intercostal spaces, in some measure, filled out. Still later, there was flatness on percussion, over the whole of the left side of the chest, which could be reached, with the exception of a region five or six inches in diameter, extending from the seventh rib to the cartilage of the twelfth, and from a vertical line through the nipple backward five or six inches. This part was tympanitic. No respiratory murmur was here heard, but occasionally gurgling, or a sound almost metallic. The voice was several times reported as modified on the diseased side.

While these changes were taking place in the chest, the cough continued in frequent, severe paroxysms. At the time of his entrance, it was spoken of as a little like that of laryngitis. The expectoration was at first reported as serous, white and frothy, afterwards as mucous, then as opaque, and twice there was a gruel-like deposit. The quantity was seldom noticed, and when so, varied from two to four ounces. Blood was occasionally seen, and during the last month became almost constant, but the quantity was never large. For the first few days, he complained of great dyspnœa, but soon obtained relief, and though it remained afterwards a constant symptom, was only occasionally spoken of as urgent. There was much pain in the left side of the chest and in the epigastrium. The tongue, though at first slightly coated, soon became clean and continued so until the close. The appetite was generally good. Though frequently troubled with profuse perspiration, febrile heat of the skin was noticed but twice. The pulse generally ranged from 84 to 96, occasionally falling below or rising above these points. On Sept. 30th, he was reported to have lost flesh, but a

month after he had apparently gained. During the greater part of the time he was able to move about, and on Oct. 29th walked in the yard twice.

On the 26th of November, after a violent paroxysm of coughing, he was seized with copious hæmoptysis. When first seen, he was sitting in a chair, having risen at the commencement of the attack. In five minutes he was unable to support his head, and gasped for breath, while the blood poured from his mouth and nose. In twelve or fifteen minutes the pulsations of the heart had ceased.

At the examination, made by Dr. J. B. S. Jackson, there were found, on the left side, old and very strong pleural adhesions, universal except at the apex, where there was a cavity containing a few ounces of liquid, which had depressed the lung at this part. The false membrane was from one to two or three lines in thickness, for the most part soft, reddish, striated, and so infiltrated with serum as to appear gelatinous.

The *lung* was much smaller than the other, and dense to the feel. At first view, it seemed to contain numerous small abscesses, but on close examination these were found to be mostly owing to dilated bronchi, those of the smaller size being, perhaps, three or four times as large as natural, while the larger were little, if at all, dilated. The inner surface of most of them was rough, and, in many others, was a little soft yellowish lymph. There were, however, a few small abscesses, lined with a yellow curdy substance, and opening rather abruptly into the bronchi. All of these cavities were filled with thick reddish pus, mixed with some dark coagulated blood, but the latter was much the most abundant in the right lung. The disease occupied, mostly, the centre and back part of the organ. The intervening portion contained no air. The tissue about the apex was grayish, dense, and semi-transparent; towards the base more red, but, examined with a lens, was found to be mixed with much of the same grayish substance, found at the apex, where were several small, white, opaque bodies resembling tubercles, but which Dr. James Jackson thought were not so. Just outside of the lining membrane of the dilated bronchi there was, in many places, a layer of opaque, yellow, curdy substance, like that already noticed. A portion of the lung was also examined by Dr. John Ware, who found no trace of tubercle, and observed the same appearances described above, with the exception of the abscesses, which the part examined by him did not happen to contain. Four

aneurisms of the aorta were found: one, one third of an inch in diameter, at the arch; another of large size, just beyond, and two at the entrance of the vessel into the abdomen. The largest commenced at the point of origin of the left subclavian artery, and extended two and one third inches along the course of the thoracic aorta. It was of the mixed kind, and would contain, perhaps, four ounces. Upon the right side of this were engrafted two false aneurisms, the upper about two thirds of an inch in diameter, closely connected with the membranous portion of the trachea, just above the bifurcation. The second was situated just below, was somewhat larger and thicker than the first, and contained a thin layer of fibrine and coagulated blood. It lay upon, and was very intimately connected with, the left primary bronchus, just below the bifurcation of the trachea. This bronchus, which was not at all compressed or flattened, appeared to be filled by a firm coagulum, an inch and a half in length, consisting partly of fibrine, partly of recent blood, and evidently formed before death. The coagulum separated, for the most part, easily from the inner surface of the bronchus, leaving it, however, rough. Near its upper termination, there was discovered at once an opening into the aneurism, through which a common director was readily passed. It was filled by a dark recent clot.

Upon the right side there were universal old adhesions. The lung was scarcely at all collapsed, the anterior edge extending to the median line, and the upper lobe even beyond it. It was healthy in its structure, except for some small dark ecchymoses. No tubercles. The bronchi contained much coagulated blood, but were not dilated.

The cartilages of the *larynx* were ossified. The *pericardium* contained three ounces of clear yellow serum. The *heart* lay further to the left side than usual, but was normal, with the exception of some thickening of the parietes of the left ventricle.

There were extensive old peritoneal adhesions. The *spleen* was large, and covered with a thick, dense, white, opaque coat.

Struck with the similarity of these cases, it was thought that others like them must have been noticed, and, on examination of a large number of journals, two were found. Others undoubtedly exist, for it is hardly possible that, exposed as the bronchi are to closure from various causes, it should not have oftener taken place.

A brief summary only is given, as the details may be found in the journals referred to. The first is reported by Dr. Banks, in the *Dublin Quarterly* for August, 1851.

The patient was a tailor, 40 years of age. On percussion, both lungs appeared equally resonant posteriorly, but the respiratory murmur in the left was extremely feeble. The whole of that side afterwards became dull, and no respiration was heard in any part of it. He died of an attack of diarrhœa.

An aneurism, of nearly the size of a cocoa-nut, involved that part of the arch of the aorta from which the left carotid and subclavian arteries arose. It pressed backwards upon the œsophagus, and was mostly imbedded in the upper part of the left lung, "upon the root of which it impinged." The lung was universally adherent, except near the base behind, where were found eight ounces of pus. It was in a "cirrhosed" condition, tough, gristly, and riddled with small abscesses, varying in size from that of a walnut to that of a pea. The *right lung* was healthy. The *large intestine* was extensively ulcerated.

This case was reported on account of the atrophy of the laryngeal muscles on one side, but the peculiar condition of the lung excited no remark.

The second case may be found in the *Medical Times and Gazette* for Sept. 11th, 1852. A man, 51 years of age, was admitted as an out-patient of St. Thomas's Hospital on Jan. 3d, 1852. Three weeks before, a swelling as large as a marble was noticed under the right clavicle. There was a severe cough and dyspnœa, the difficulty of breathing being increased by exertion. He could not lie down comfortably at night, sometimes not at all. On Feb. 9th, the respiratory murmur was attended by a loud ronchus. On March 8th, there was decisive evidence of a tumor pressing upon the left bronchus, for, while that side was resonant on percussion, the respiratory murmur was wholly abolished, a slight râle only being perceptible after forced inspiration. On May 27th, he was seized with pain in the throat and difficulty of swallowing, and vomited everything taken. On the 31st, he had a severe paroxysm of coughing, and vomited blood mixed with pus. Afterwards he was able to swallow small portions of food. The dyspnœa was so great that he could scarcely lie down, and, at intervals, he coughed, and expectorated bloody matter. The respiration in the right side was very audible; in the left it was attended by general

crepitus, and the side was dull on percussion. He died on the 2d of June.

At the autopsy, on the following day, there was found a very large aneurism of the ascending aorta, which had pressed somewhat upon the left primary bronchus; but the real cause of the closure of the latter was a collection of pus, contained within a cavity lying between the bronchus and œsophagus, into each of which it had opened. The mucous membrane of the *bronchus* was very dark colored, and, in places, deeply ulcerated. Apertures of considerable size established a communication with the abscess. The latter probably originated in one of the bronchial glands, as those adjacent were soft and apparently passing into suppuration. The left lung was, throughout, adherent to the parietes, entirely solidified and passing into the stage of purulent infiltration. In some portions, more especially at the lower and posterior margin, it was studded with numerous small cavities, containing pus and gangrenous pulmonary tissue. These cavities had probably originated in the smaller bronchial tubes, as the mucous membrane was everywhere of a deep leaden hue, and, in places, ulcerated. The tubes, especially those of small size, contained much dark offensive secretion. The *right lung* was congested, but not otherwise diseased. *Heart* normal.

These cases vary in some respects: in three there was more or less pleuritic disease; in one the bronchi were dilated; and in one, gangrenous tissue was spoken of, but certain features are common to them all. In every one the left primary bronchus was closed, and there is as great a similarity in the descriptions of the corresponding lung as could be reasonably expected from independent observers, who had no special point to establish. Moreover, this closure was not caused in every instance by pressure, but, in two of the cases, by a coagulum which filled the bronchus. We may, therefore, safely assert that the disease was not the result of compression of the bronchial arteries, or of other parts, upon the integrity of which the healthy condition of the lungs depends, but of *the interruption to the entrance of the air*. Taking this view, the following explanation does not seem unreasonable.

The circulation in the capillaries of the lungs is, probably, mostly dependent upon the interchange of elements between the blood and the air. The bronchus being closed, there is, therefore, an absence of the physiological conditions upon which this circulation

depends, and stagnation is the result. Now, here, as in other parts of the body under similar circumstances, inflammation is excited and extends to the surrounding tissues. In other words, the primary disease is capillary phlebitis. It might seem that where such extensive obstruction of the smallest vessels exists, the large trunks should also be plugged; but in the second case, where nearly the whole lung was destroyed, nothing of the kind is mentioned, which proves that the obstruction may be very general in the capillaries without extending to the primary branches of the pulmonary artery.

However, this is only a theory, and the cases were not brought forward for the purpose of introducing it. They were intended to show that, in consequence of the closure of a primary bronchus, the lung may become inflamed, suppurate, and finally be destroyed.

Of this fact no mention is made in any work on pathological anatomy, as far as has been ascertained. Dr. J. B. S. Jackson, in his private notes as above stated, speaks of the changes in the lung, and of its connection with closure of the primary bronchus; but in neither of the cases reported has it attracted attention as anything striking or peculiar.

# CASE OF HON. CHARLES SUMNER.

BY MARSHALL S. PERRY, M.D., OF BOSTON.

Communicated to the Boston Society for Medical Improvement, Dec. 15th, 1856.

The assault was made upon Mr. Sumner in the Senate of the United States, on Thursday, May 22d. The first blow produced insensibility. It is not certain how many blows he received; they were many. He bled profusely, and fell insensible on the floor. When he was removed to the ante-room, it was thought he could not survive. His wounds were dressed by Dr. Boyle. He had two gashes on the back of the head, one above each ear, about two, or two and a half inches in length. These gashes went through the scalp to the bone, which was laid bare, but it is supposed not fractured. Besides these, he had bruises on the face, on the back of each hand and on the arms.

From the time of the attack until the Monday following, no serious symptoms manifested themselves, except some pain and soreness in the head, and nervousness. Tuesday morning he had more pain, and in the afternoon he was quite feverish. During the night the pain became very violent, and when I saw him early on Wednesday, for the first time, professionally, he had a high fever, pulse 104, intense pain in the head, eyes suffused, and extreme nervousness. The scalp above the right ear was inflamed, having the appearance of erysipelas. This inflammation extended to the glands of the neck, which were swollen and tender to the touch. On examination, it was found that pus had formed under the scalp, which escaped readily on opening the wound, which had been

closed over with collodion by Dr. Boyle. Mr. S. had suffered so much during the last ten hours, that he had become very much exhausted. He was put under the influence of opium; the wound was poulticed, and perfect rest enjoined. For three days he was in a critical situation. The local inflammation, the danger of poison from the absorption of pus, and the extreme nervous exhaustion, made it a formidable case. At the end, however, of this time, he appeared to be out of immediate danger.

The wound on the left side of the head healed by first intention. It was several weeks before that on the right side closed over. During this time he was very weak, had some fever, especially when excited, and was confined mostly to his bed. He did not at that time complain of much pain in his head, but as the wound healed after several weeks, he had neuralgic pain in the back of the head, coming on in paroxysms. As these passed away, he had a feeling of oppressive weight or pressure of the brain, which was increased when excited or engaged in conversation. He described it as "a 56-pounds weight" upon his head. At the same time he lost flesh and strength, his appetite was irregular, and his nights wakeful—sometimes lying awake all night, or when sleeping, disturbed. He had also increased sensibility of the spinal cord, and a sense of weakness in the small of the back. These were developed by walking, and every step he took seemed to produce a shock upon the brain. His walk was irregular and uncertain, and after slight efforts he would lose almost entire control of the lower extremities.

In this condition he was advised by Dr. Lindsly, of Washington, to remove from that place to some more quiet spot. He accordingly came to Philadelphia, and there called upon Dr. Wister for advice. Mountain air and complete seclusion were recommended; but Mr. Sumner undertook first to try the sea air, and went to Cape May. Here he was very weak, so that he was unable to bathe, and he finally left without any sensible improvement. On the recommendation of Dr. Wister, he went to Cresson, in the Alleghany Mountains. While there he was in the family of Dr. R. M. Jackson, and under his medical direction.

The following letters, received from Drs. Wister and Jackson, describe Mr. Sumner's condition while under their care.

*Philadelphia, Oct. 14th*, 1856.

Dr. M. S. Perry,—Dear Sir,—It gives me much pleasure to reply to your note of inquiry concerning the health of Mr. Sumner.

You are perfectly aware of the condition of Mr. S. when he reached this city on the 9th of July; a condition of extreme nervous exhaustion, his circulation feeble, and in fact every vital power alarmingly sunken. At that time his steps were feeble and tottering, as in extreme old age; he complained of constant pain in the back and lower extremities; in the latter, it was a tired and weary sensation, and he had a sense of constriction and pressure about the head. At that time his pulse was quick and small, appetite languid, and his sleep broken, disturbed and unrefreshing. All the above conditions were heightened by exertion, either mental or physical. I could find no evidence of organic disease. I understood Mr. Sumner to be in that state of extreme nervous exhaustion from which men are months, and, at times, even years, in being fully restored.

Mr. Sumner has done eminently well. His present state is but a shadow of that above described; and although none of the features of the past are lost, they are only evident when imprudent exertion, mental or physical, shall call them up. Within the limits of exertion of an ordinary retired gentleman, Mr. Sumner improves daily, and all his powers improve, with a steady progress towards perfect health. Indiscretion brings on morbid wakefulness, and in the recurring outline of his former condition, admonishes him that though recovering, he is still in risk.

With much respect, truly yours, Caspar Wister.

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LETTER FROM DR. JACKSON.*

You ask for a brief report of the case of the Hon. Charles Sumner, as it came under my observation during his visit and stay

* This letter was addressed to Hon. H. Wilson.

on the Alleghany Mountain in Pennsylvania. Mr. Sumner came to Cresson on the 3d of August last. On his arrival, he had the appearance of a man who had been sick for a long time, and was still extremely unwell. Careful observations and examinations of the case, for some time, revealed the following appearances and symptoms.

The lips were pale, showing a watery condition of the blood, evinced also by general pallor of the countenance and flabbiness of the solids. The action of the heart and arteries was weak, the pulse being slow and languid. On the surface of the head the integuments showed a slight redness around the cicatrices of the recently-healed cuts; also some morbid sensibility on pressure. Efforts at walking gave a tottering and uncertain gait, as if from partial paralysis (say threatened paraplegia), the steps being short and unsteady, the muscles evidently not under the complete control of the will, the limbs even giving way partially. The slightest exertion was followed by lassitude, quite disproportioned to the efforts. His nights were frequently passed in a state of morbid wakefulness, and general uneasiness. The action of the brain was always followed by a sense of weight and dull throbbing pain in the head. This result invariably followed even the slightest mental effort of writing a common letter of business.

The entire chain of symptoms soon pointed to the head and spine as the seat of a highly morbid condition. The contents of the other cavities of the body seemed normal. As no regular medical report had been given me of the case before its arrival at the Mountain, its original condition after the assault had to be inferred from present inspection, without the history of its progress. From this it was clearly evident that the brain and spinal cord had been the seat of a grave and formidable lesion. As the first violent symptoms had passed off, the consequences of which, veiled and obscure, were the only evidence by which the case could be read, it was clearly apparent that its present pathological condition was of a most serious character, and had been preceded by impending danger to life. From all the facts, it was evident that from the blows upon the skull,

there must have been either congestion, or concussion followed by congestion, or positive inflammation of the brain or its investing membranes in this case. Actual fracture is not at all necessary to this result. In Hope's Pathological Anatomy, we have the following statement: "In several cases of fracture of the skull, and in some of injury of the scalp alone (!), I have found pus, either liquid or of a pasty consistence, between the bone and the dura mater, and adhering to both." Thus inflammation and its products on the interior of the skull proceed from "*injuries of the scalp alone.*" The injury occurring in a subject of a highly impressible and delicate nervous temperament, at a time in which the central organ of the nervous system was exhausted by excessive mental tension for days and nights of severe effort, carried with it impending destruction. The insidious danger of the first injury was *now* only to be estimated by its threatening consequences at the stage of progress of the case when it arrived at the Mountain. All too plainly marked by fearful features the true character of the effects of the assault in the Senate, and plainly showed their fatal tendencies in the condition of the man. At this stage of the case, whatever might have been, or might now be the condition of the suffering internal organs, debility and exhaustion of life was manifestly the clearest phenomenon visible.

This was accompanied with an interrupted action of the muscles of voluntary motion, great weakness of the loins, inability to protract beyond a few minutes any mental effort without pain, weight and uneasiness in the head, together with soreness in the region of the cervical vertebræ; all of which symptoms, taken together, demonstrate a case ravaged by severe disease in the great nervous centre, and showing in that region still a highly pathological condition of parts. All the symptoms being of a depressed order, exhaustion and weakness predominating in all the functions, the clear indication in the case was to rëenergize the man in every way, and by every influence. This, it seemed, would be most effectually secured by a judicious diet, mild tonic agents, constant exercise in the open air on horseback, or in a carriage, and by cessation of all active

efforts of the diseased parts, and a gradual stringing up and intonation of the whole body under the influence of mountain air, mountain water, and change of climate. Within five weeks, the effects of this treatment were marked and clearly visible to all. So emphatic were they in the consciousness of Mr. Sumner, that he could not be persuaded he was still an invalid, and not almost well and ready for the field of active operations. He left the Mountain prematurely, before he was hardened and his body restored to its normal tone. This was done contrary to my urgent advice and entreaties. It was clearly apparent, that with one more month of the bracing influences of the Mountain, he would have been much better than at present, and the perfect final restoration of the Senator's health greatly facilitated. Yours truly,

*Cresson, Nov. 12th*, 1856. R. M. Jackson.

Since Mr. Sumner's return to Boston, he has been gradually improving. He has followed a rigid system of exercise in the open air, and carefully avoided all intellectual excitement. The pressure in his head, or sensation of weight, which formerly came on after the slightest mental or physical exertion, and which was very oppressive, is now felt only after great fatigue, or considerable effort of the mind. He still complains, after sitting up for a long time, of pain in his back; and when he rises from his bed or chair, he finds at first some difficulty in using the muscles of the lower extremities, but after walking a short time they become quite flexible and under the complete control of the will. His appetite is good, he sleeps much better than he did, and is gaining flesh and strength. I see no reason why he may not entirely recover, unless he allows himself too soon to enter upon his senatorial duties. He has already assumed the external appearance of health. Time and mental repose will do the rest.

I think it is impossible to decide, with absolute certainty, what the pathological condition of Mr. Sumner's brain has been; but I am inclined to the opinion of Dr. Jackson, that the base of the brain, as well as the spinal cord, has been the seat of some serious lesion. The

long-continued sense of weight in his head, the pain along the spine, the partial loss of power in the lower extremities, the loss of flesh during the first three months after the attack, and the wakefulness without any affection of the mind, would lead, I think, to this conclusion. Had the patient died, a *post-mortem* examination would have determined conclusively the character of the injury; but we can only make an approximation to a true appreciation of the case by a cautious interpretation of the symptoms.

# SICKNESS AND DEATH OF DR. KANE.

BY F. S. AINSWORTH, M.D.

Communicated to the Boston Society for Medical Improvement, March 9th, 1857.

THE death of the late Dr. E. K. KANE, which took place in Havana on the 16th of February, though not unexpected has still filled the minds of all who knew him with deep regret that a career so brilliantly commenced and so faithfully followed should be so prematurely terminated. It was the fortune of the writer to attend him, in consultation with his regular physician (Dr. La Riverend), during the last part of the sickness which terminated his life. A few particulars of his case, gathered in that short period, will, it is believed, derive some interest from their connection with one so justly celebrated.

Dr. Kane inherited a decided predisposition to rheumatic affection, and had from early life been subject to attacks of articular rheumatism. He suffered very severely from this disease after his return from the first Arctic expedition. The heart, also, had become involved, and he was thought to have a considerable degree of hypertrophy, together with thickening of the valves. So severely was he afflicted with articular rheumatism while preparing for the last cruise in search of Sir John Franklin, that it was often necessary to apply frictions to the joints for an hour, before rising in the morning, in order to enable him to ride to the Navy Yard, where the "Advance" was fitting out.

Very soon after getting into the high latitudes, however, these difficulties subsided—a result which would hardly have been an-

ticipated, but which he had observed in his own case on his previous voyage. What his sufferings and exposures were during his Arctic expedition, is well known; but it is proper to state that they were much more severe, and their effect upon his constitution more disastrous, than would be supposed from the few allusions made to his own case in the published account of the expedition.

On his return, his previous rheumatic and cardiac troubles had become complicated with scurvy; though very much exhausted and worn out by the hardships he had undergone, he allowed himself no time for repose, but labored incessantly in preparing the account of his expedition for publication. This fatigue, together with the great change in climate and habits, brought on a severe relapse of his constitutional disease, aggravated by the newly acquired scorbutic taint. He received little or no benefit from the treatment of his disease while in this country, and was advised to try a change of climate; accordingly, after the publication of his book, he sailed for England. Here his health became much better, all his symptoms were much improved, and he considered himself nearly restored to health. As, however, there still remained some traces of scurvy about him, his physicians advised him to spend the winter in the West Indies, for the benefit of the climate and fruits.

Since his return from the north, there was a somewhat remarkable change in his ability to bear the motion of the ship; he had become unusually sensitive to sea-sickness, which was brought on by even a slight rolling of the vessel. The voyage from London to St. Thomas was, however, well supported; while there, his health continued to improve, and at the end of six weeks he sailed for Havana. The ship in which he took passage was overtaken by a severe storm; he was very much affected by the motion of the vessel, and in the effort and strain of vomiting ruptured a bloodvessel in the brain. Entire insensibility followed, and continued for several days after his arrival in Havana. A partial recovery took place after a few days, but the right side was found to be completely paralyzed.

During the months of December and January and until the 10th of February, he slowly rallied from this attack, and was able to walk a little about his room and to drive out. He recovered the use of the right hand and wrist to a great degree, and shortly be-

fore the second attack was able to rotate the fore-arm. His mind was perfectly clear, although there was some loss of control over the memory. When he endeavored to recal any circumstance which had transpired, several others, more or less connected with it, were remembered, from which he was unable to isolate the particular fact desired. Of this difficulty he was himself perfectly conscious.

On the 10th of February, at the morning visit, he appeared more cheerful than usual, and conversed a good deal with those about him. About 11 o'clock, however, he was suddenly seized with a severe attack of apoplexy, which deprived him entirely of consciousness. There was at first considerable spasmodic action of the muscles, which simulated in some degree a fit of epilepsy. These symptoms soon subsided, leaving him with almost complete paralysis of the entire body. The iris responded to light, and the muscles of the pharynx acted when stimulated by fluid introduced into the mouth. The pulse was feeble, and varied from 120 to 140 beats. The skin was moist and cool. He remained very much in this state until his death, which took place on the fifth day after the seizure. In this interval, however, he seemed to have recovered some degree of consciousness, and several times signified assent to a question by turning his eyes toward the speaker. There was some motion of the lips when a spoon was placed in the mouth, and once or twice he was able to make sensible pressure with the right hand. There was no indication of suffering during his last hours, and he died apparently from simple exhaustion.

The tenacity of life in this case was quite remarkable. A constitution broken by chronic disease of many years' standing—a series of hardships and exposures almost unheard of, with all the depressing addition of care and responsibility—followed by an affection which for some months threatened his life; add to all these an attack of apoplexy, paralyzing entirely the right side, and in two months after a relapse affecting the whole body, and one can hardly conceive how life could have been sustained for so long a period as five days after the last shock.

The treatment in this case was quite simple. On account of his previous illness and the scorbutic taint in his system, it was thought unsafe to resort to the active measures usually pursued in such cases. After the first attack, small doses of ext. nux vomica

with quinine were administered. These were suspended after a time, through fear of increasing the cardiac disease, and a light tonic and anti-scorbutic course was followed. After the second attack, a few leeches were applied, together with cold applications to the head.

# STRAMONIUM IN PUERPERAL CONVULSIONS.

BY R. H. SALTER, M.D.

Read before the Boston Society for Medical Improvement, March 9th, 1857.

CONVULSIONS, whether preceding, occurring at the time of, or following, labor, are the most frightful complications that attend the puerperal state; and it is a question whether the various views entertained respecting their pathology have yet indicated to us the most discriminating and rational method of treatment. It is said by nearly all writers on the subject, that the practice of large bleeding, carried to the extent of sixty or seventy ounces and even more, in the course of a very few hours, together with other evacuants, as cathartics and emetics, and in some cases the application of epispastics to the shaved head, are the most reliable means of treatment we can employ, and, compared with those employed by our predecessors, infinitely more successful. These, including artificial or forcible delivery, are considered the first and last things to be done in puerperal convulsions. The chief reliance is upon large bleedings. This is considered the sheet anchor of hope. No exceptions are made, and no account is taken of the condition of the patient as respects her general state as indicated by the fulness and strength or weakness of action of the circulating system. The simple fact of the existence of convulsions is considered a sufficient reason for commencing the process at once. It is perfectly obvious that this course of proceeding is altogether empirical, and that the practitioner is working at hap-hazard, without a single principle to guide him in this particular.

It may be well to refer, in this connection, to a supplementary method of proceeding, in certain cases, which seems to cap the

climax of this empirical practice. When the *usual remedies*, as bleeding, warm baths, &c., have failed, the neck of the womb is incised sufficiently to allow, in head presentations, the introduction of the forceps when practicable, or the hand for the purpose of turning. Four incisions are generally recommended. This method has obtained considerable favor in France, and I believe has the sanction of Prof. Simpson, of Edinburgh. The objection to it is not simply that it is unscientific and cruel, but because, if successful, it unnecessarily risks the superinduction of further difficulties, both immediate and prospective. The immediate, comprise hæmorrhage, morbid inflammation, long and tedious confinement. The prospective, comprise the difficulties to be overcome at the next period of labor (if the woman should again conceive), arising from the cartilaginous cicatrices of the previous incisions and attendant lacerations, and the increased predisposition to disease, malignant or otherwise, of the uterus;—*arte, non vi.*

There are many other special remedies which have been recommended for the treatment of puerperal convulsions; the latest, as far as I am informed, are the anæsthetic agents. It is not my present purpose, however, to enter upon any discussion of the various remedies referred to, or even to speak particularly of those rules and principles which should guide us in the application of remedial measures, or direct us in deciding the question of artificial delivery. I shall limit myself to giving a summary of a few cases which have occurred under my own observation, in which a method of treatment will be suggested that in my view is far more eligible than those to which I have alluded.

In reference, however, to the practice of large bleedings, &c., it is not enough to say that the patient has recovered. We want to know the form of convulsion in which it is practised, and the effects of such treatment upon the future health of the individual. I cannot believe, even if the patient does survive the remedial process, that such enormous bleedings—so large in some instances that there is not *pabulum vitæ* enough remaining to feed a convulsion—can be practised without imminent peril to life, or in some way impairing the constitution and laying the foundation for future disease and suffering.

Case I.—Mrs. J. S., aged 23 years: first pregnancy; of a slender form and delicate constitution: was delivered of a living child

in the evening of Oct. 7, 1841, after a perfectly natural labor of twenty hours' duration. She recovered slowly but favorably until the evening of the 18th, when, without any apparent cause, she was seized with a violent convulsion of an epileptic character. Her tongue was badly wounded during the first fit. The fits recurring, and no contra-indicating symptoms forbidding, half an ounce of the tincture of stramonium was administered at a single dose. In about twenty-five minutes the pupils of the eyes began to dilate, indicating the constitutional effects of the medicine, and the convulsions ceased. Her recovery was imperfect, there remaining partial paralysis of the right side of the body, which affects her somewhat to this day.

Case II.—Mrs. J. B., aged 20 years; first pregnancy; short, rather stout, and of thick-set form; was taken in labor at expected time, about 3 o'clock, A.M., Nov. 12th, 1844. Labor progressed naturally and regularly until near 11 o'clock, P.M., same day, at which time, while the head was passing the superior strait, she was seized with strong convulsions of the common sort. These fits recurred several times, at intervals of from fifteen to twenty minutes. Labor pains were not entirely suspended, though they were far less effective than previous to the attack—and a fit would seem occasionally to be excited by the access of a pain. I administered to this patient half an ounce of the tincture of stramonium, nothing contra-indicating, in conjunction with the tincture of ergot. Only one convulsion occurred after the medicine was taken, and the woman was safely delivered of a living child at 2 o'clock and 10 minutes, A.M., of the 13th. The patient remained in a state of partial coma after the second fit, and continued so after the delivery until the next morning. Both mother and child did well.

Case III.—Mrs. E. C., aged 28 years; first pregnancy; of a sanguineo-nervous temperament and delicate habit of body; was taken in labor at expected time, about 2 o'clock, A.M., July 5th, 1850. The labor progressed favorably until 9 o'clock, P.M. At this time the head of the child was passing the superior strait, and pressing somewhat on the perinæum. Suddenly, and without warning, she was now seized with strong convulsive movements of an hysterical character, gradually assuming the form of a moderate degree of opisthotonos. After delaying an hour, and seeing no

progress in the labor or improvement of the convulsive action from common means—as dashing cold water in the face, &c.—I administered half an ounce of the tincture of stramonium in conjunction with the tincture of ergot. In half an hour the convulsive action entirely ceased, and she was delivered at half past 11 o'clock, of a living child. Both mother and child did well.

Case IV.—P. D. C., aged 20 years; first pregnancy; had been six months married, and was at the eighth month of gestation. She was rather short, robust, of a thick-set form, full habit, and of sanguine temperament. Nov. 16th, 1850, had slight uterine hæmorrhage, which continued very moderately about one week. On the evening of Nov. 28th, having returned to the city after an absence of two days, I found an urgent summons to visit this lady. On arriving at the house, I was informed by a physician in attendance that she had been in convulsions about thirty-six hours; had been bled to the extent of between four and five pounds, and that she was getting worse every hour, the convulsions quite as violent and more frequent; the intervals at this time varying only from ten to fifteen minutes. The physician, exhausted by his previous attendance, left the patient entirely to my care. She was the most deplorable and pitiable object I ever beheld. Her face was terribly swollen and livid, the tongue protruding from between the teeth, swollen and dreadfully lacerated, and bloody froth pouring from her mouth; respiration deep, labored and stertorous; the pupils of the eyes, as well as I could judge, preternaturally contracted; the pulse thready, weak, and so rapid as not to be counted; total inability to swallow, together with complete stupor or entire unconsciousness. In such a state of things one might well despair. Before the messenger returned from the druggist's, she had two convulsions. They were of an epileptic character, and extremely violent. There was no certain sign of labor having commenced. The os uteri was quite closed, though the cervix was obliterated, and the uterus itself had subsided considerably into the pelvic cavity. As the patient was unable to swallow, ten drachms of the tincture of stramonium were administered by enema. She had one convulsion within five minutes after the injection, and this was the last. In twenty-five minutes the pupils of the eyes were partially dilated, and within an hour the patient was comparatively quiet. Directions were given to administer diluted wine or brandy

and liquid nourishment, beef tea, gruel, &c., as soon as she could swallow. At this time, also, I made a careful examination with the stethoscope to determine the life or death of the child. Discovering no signs of life, I directed turpentine injections to be given every four hours—both as a stimulant for the general system, and to excite uterine action. On the next morning, the 29th, I found the patient somewhat improved; had been able to swallow a little, though with considerable difficulty. Labor had also commenced, the os uteri being dilated to the size of a quarter of a dollar. She was delivered of a small, dead child, about 3 o'clock, P.M., of the 30th. Her consciousness did not return until the 3d of December. She had no recollection of anything that had transpired since the commencement of her illness. She recovered rapidly and fully—but never has been as robust as before this attack, and becomes much more easily exhausted on exertion.

Case V.—Mrs. J. R. B., aged 33 years, was in her fifth pregnancy. Temperament bilious, tall, and of a delicate habit of body. Previous pregnancies perfectly natural, the fourth being twins. This woman was taken in labor at expected time, about 12 o'clock, M., March 17th, 1852. Slight uterine pains continued very regularly until near 6 o'clock, P.M., when she was seized with an intense pain in the right temple, the labor pains ceasing at the same moment. I was now summoned to visit her. I found her dull, heavy and indisposed to answer my questions; and when she did answer, there was some rambling and incoherency in her replies. Pulse preternaturally slow, but otherwise quite normal. Skin natural. Os uteri soft and very dilatable. Made gentle traction to induce labor pain, with the hope of relieving the head, and with success. Soon discovered that the feet presented. Uterine action re-commencing, moderate pains continued to recur every ten minutes, with perfect regularity. While these lasted, all the unfavorable symptoms disappeared. At the end of about two hours, the intense headache returned, accompanied with the like symptoms as before mentioned. I again used traction, with the same result as at first. In about half an hour, however, from this, she gave a sudden shriek, and was immediately extended full length upon the bed in one intense spasm, running into opisthotonos, evidently of an hysterical character. These fits recurring frequently

and the intervals being so filled up with disquiet and jactitation as to prevent my rupturing the membranes and bringing down the feet, I administered half an ounce of the tincture of stramonium. In less than half an hour the convulsive action ceased, and the patient became quiet. I then ruptured the membranes, brought down one foot, and managed the case as if no complication had existed. Both mother and child did well.

Case VI.—Miss J. M., aged 19 years; first pregnancy; unmarried; rather short, stout, of thick-set form and robust constitution; was taken in labor, at full time, 10 o'clock, P.M., June 20th, 1854. Labor progressed favorably and naturally for fifteen hours, when, at the time the head was passing the superior strait, she was seized with violent convulsions of the common sort. Uterine action was not entirely suspended, but with nearly every return of pain a fresh convulsion occurred. Half an ounce of the tincture of stramonium was administered in conjunction with ergot. One fit occurred within ten minutes after the medicine was given. There were no more fits until after delivery, which was accomplished at about 4 o'clock, P.M., of the 21st; the child living. The mother remained quiet and in a state of partial coma about four hours, when she was again seized with convulsions. Finding that the pupils of the eyes presented almost their normal size on exposure to light, I administered five drachms of the tincture of stramonium. She had a fresh fit soon after the medicine was given, and this was the last. Both mother and child did well.

I might have added to the number of cases treated in this manner and with equal success, by relating those which I have visited in consultation, but I will not detain you, excepting to say that the common and hysterical forms of puerperal convulsions will tolerate, and for the most part do well, under almost any rational and judicious treatment. Still, in these forms I consider the treatment with stramonium as far preferable. It is in the epileptic form, the most frightful and formidable of all puerperal convulsions, that the common treatment is most likely to fail; and if perchance it should not fail, it is replete with peril, not only immediate, to life, but also to the future health of the individual. It is in this form that the comparative value and power of stramonium to control spastic action is most strikingly exhibited.

There are cases, undoubtedly, in which all the symptoms taken

together, would not only justify but require that a moderate bleeding should be premised as a *preparatory* measure; as, for example, where we find, during the interval of the fits, by the state of the pulse, the evidence of phlogistic action in the circulating system. Ergot and turpentine, also, will be found very necessary adjuvants for fulfilling certain indications, and other articles might be mentioned; but in no case are any of these, remedies *per se* for convulsions. I consider the tincture of stramonium, properly administered, when there are no contra-indicating circumstances, as a *sine qua non* for the speediest, safest and most uniformly successful relief of puerperal convulsions.

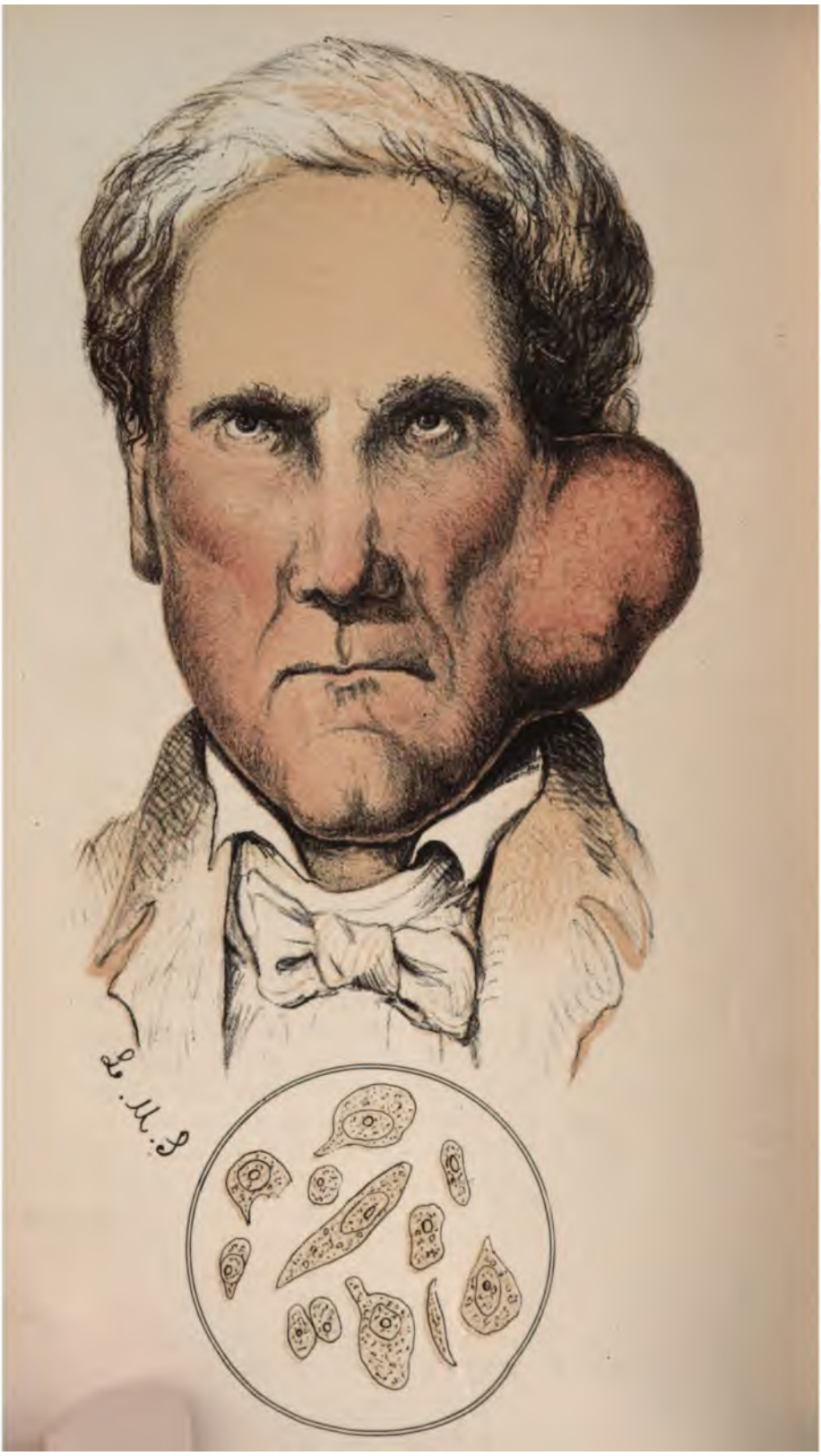
The two following cases will show that stramonium is as promptly effectual for the relief of the simple forms of convulsions, as for those complicated with the puerperal state.

Case I.—J. R., 17 years of age, had had indifferent health for more than a year, at times, however, suffering considerably from neuralgic or rheumalgic pains in the chest, particularly in the cardiac region—at other times in the abdominal muscles, and in the limbs. At these periods of special suffering he was confined to the house, and sometimes to his bed. One of the worst turns of this sort occurred in December, 1856. At this time the abdominal muscles and the intestines were the principal seats of pain, though the muscles of the chest and the heart were somewhat implicated. In the commencement of these paroxysms the impulse of the heart was always preternaturally strong, and the sounds loud. The pulse, besides being preternaturally frequent and irritable, had a peculiar irregularity in its beat, without corresponding action of the heart. Each stroke of the pulse was attended by three or four spasmodic twitchings, or quiverings, giving a sensation somewhat like a clonic spasm of a muscle of the eyelid, called nictitation. At one time this peculiarity of the pulse would subside within twenty-four hours—at others continue two or three days—but invariably as soon as the pain in the cardiac region was relieved. About midnight of the third day after this last attack, December 7th, he was seized with a convulsion, lasting a very few minutes. During the same night and following forenoon, he had seven or eight fits. They were of the common sort. At noon of this day, December 8th, I directed one drachm doses of the tincture of stramonium to be given every fifteen minutes until four or five doses were taken, and then to suspend. There were no more convulsions until the

forenoon of the 9th, when he had another fit. The stramonium was then repeated as before. He had another fit late in the afternoon of the 10th. The same plan was again repeated with the stramonium, with the additional direction, however, that after the fourth dose it was to be continued at an interval of four hours. On the 11th the pupils of the eyes were fully dilated. The stramonium was now omitted, and the protoxide of zinc and opium, in the proportion of ten and one grains respectively, was administered daily. The boy had no more convulsions after the one on the 10th. The zinc and opium were continued several weeks. At the present time he is in better health, and feels more vigor, than for nearly eighteen months.

Case II.—Miss ——, 24 years of age, had uniformly enjoyed good health. I visited this patient in consultation late in the evening of January 13th, 1857. She had been in convulsions about thirty-six hours. At first view, the case appeared to be one of tetanus. It was certainly a very striking counterfeit. The opisthotonos was perfect, the woman resting upon her heels and head, and forming a complete arch. After three or four successive paroxysms of this form, there occurred emprosthotonos. After as many paroxysms of this form, opisthotonos recurred—thus alternating from the one to the other. The paroxysms were violent, and the spasms intense. It was soon evident, however, from the history of the case and some attending symptoms, that the convulsive action was of an hysterical character. The attending physician had previously formed this opinion. I advised the use of the tincture of stramonium in half ounce doses. If the first dose did not relieve the patient within half or three quarters of an hour, to repeat in the same quantity. I learned from the attending physician, afterwards, that he administered the medicine himself as advised, and awaited the result. In less than half an hour after the medicine was given, the convulsive action ceased, and the woman became perfectly quiet, fell asleep, and did not awake until next morning, when she rose feeling perfectly well, experiencing no inconvenience whatever from the disease or the medicine.

I will simply remark, in conclusion, that I am inclined to believe that many of the cases reported as tetanus are only counterfeits of this disease. I judge so from the treatment which is said to cure them. An elephant is not easily slain with a pop-gun, and *one* would hardly think of using a cannon to kill a fly.



# TUMORS IN THE PAROTID REGION.

BY J. M. WARREN, M. D.

Communicated to the Boston Society for Medical Improvement, April 13th, 1857.

THE tumor, of which the accompanying colored drawing made by Dr. L. M. Sargent, artist to the Hospital, is a representation, was removed three weeks since, and the patient has now nearly recovered. Its origin dated twenty years back by a small swelling in front of the left ear, gradually enlarging, and finally possessing itself of part of the cheek, so as to cover the ramus and angle of the jaw. It was lobulated, soft, but not fluctuating; it had never given him any pain, but was inconvenient from its size and appearance. The patient had avoided an earlier resort to an operation, probably from having been informed eighteen years ago by a medical man, that its removal would cause his death.

The dissection was accomplished without much bleeding, and without injury to any important organ. The parotid gland at the upper part of the tumor was not to be distinguished, as if it might have been removed by absorption; remains of it, however, could be seen at the lower part of the wound, where it extended on to the neck.

The interesting part of the tumor, apparently so innocuous in its character, is the appearance discovered by the microscope, of which the following is the description by Dr. Ellis. "The tumor from the parotid region was composed of large cells, of every conceivable shape, containing large nuclei and nucleoli. They were such as are found in the most malignant tumors. The power used was

382 diameters; Nachet." A section of the tumor was like that of a ripe apple or pear, the central portion occupied by a cavity filled with a gelatinous substance somewhat like coagulated blood.

In regard to the tumors usually found in this region, they either originate in a small gland placed over the parotid, or imbedded in its substance, or are placed under its lower or free edge, which is expanded to form a coating over the tumor, making it necessary to dissect through that portion of the expanded gland before the tumor is reached. These tumors are generally innocuous, and are removed without great risk, although they are almost always extremely vascular. So far as my experience goes, the tumors of the parotid itself are affections of a serious character, often of a malignant nature, and generally scirrhous.

As to the practical question which is often raised, whether the gland can be removed without the ligature of the carotid, the result of my experience is this. The parotid gland has been removed by me in six instances, which are given below; three for scirrhous disease, one for erectile tissue, one for melanosis, and one for hypertrophy; in none of these was the great artery tied. The experiment of dissecting out the parotid gland in the dead subject has been frequently made by me, and with a little care this can be done in most instances, leaving the great vessels behind, although sometimes a small backward-projecting bit of the gland is left, and this has been observed to escape disease. But in scirrhous affections, where the gland undergoes a gradual induration, the vessels are frequently pushed backward, as they were in one or two of the cases here given. The above observation is confirmed by my friend and colleague at the Hospital, Dr. Gay, who made similar dissections on the dead body to ascertain this point.

In a case mentioned by Dr. J. C. Warren the carotid was cut at the end of the operation, and the jet of blood struck the wall. The vessel was secured, the carotid being compressed below, and the patient did well. In a second case for the removal of a scirrhous parotid, in which I assisted Dr. W., the carotid was divided and tied. Three days after, as the patient was straining at stool, the vessel gave way, and the blood struck the ceiling. He almost at once fainted, and the friends were fortunately sufficiently cool to place a sponge in the wound, and to check the flow partially. I was called, and at once cut down upon the carotid in the neck, tied it, and stopped the further effusion of blood. Bérard, in his mo-

nograph on this subject, mentions many instances of removal of this gland without ligature of the carotid.

The following cases, one of which has already been published in the Boston Medical and Surgical Journal, are interesting as illustrative of the above facts, and also from some peculiarities in the nature of the tumors themselves.

Case I.—A young married woman entered the Hospital in April, 1847, with a tumor of the parotid gland of one year's duration. Eight years previously she had a tumor below and behind the right ear, which was very hard and occasionally painful; the integument was not discolored. At the end of four years, having attained the size of a robin's egg, it was removed. The wound, she thinks, never cicatrized; and in four months, the tumor having re-appeared in the midst of the scar, was again removed. Its character was similar to the preceding, with the exception that the surface was nodulated. The wound healed as usual, but the cicatrix remained very red. The present tumor began to form about a year since in the same place, and is now as large as a pullet's egg, projecting an inch, with a surface nodulated and red. Commencing below the ear, it proceeds upward and forward to about half an inch in front of the meatus.

On the first day of May, the patient being etherized, the diseased mass was surrounded by an elliptical incision. From the situation of the disease the dissection was made very slowly, requiring nearly an hour for the operation. At the lower part was a firm adhesion to the fibres of the sterno-mastoid, a portion of which muscle was removed. At the upper part it was necessary to carry the dissection down to the articulation of the jaw, below and behind the angle of which the disease descended deeply, rendering necessary the exposure of the tendon of the digastricus. On raising the tumor to continue the deep dissection, violent efforts at vomiting, difficulty of breathing, and convulsive retchings from the traction exercised on the deep nerves came on, so that it was necessary to desist, and destroy the small portion of the base of the tumor with the hot iron. A few ligatures were applied, and the wound, measuring three inches and a half vertically by two transversely, was covered by a wet cloth. The growth measured vertically three inches. The face was more or less paralyzed after the operation.

This lady was discharged from the Hospital on the 18th of June, all the disease being apparently removed, and the whole wound reduced to a diameter of one third of an inch. In the middle of September following a letter was received, saying that the patient remained well, and the wound was healed.

CASE II.—A robust, hearty-looking man belonging to the State of Maine, about 34 years old, consulted me for a tumor in the right parotid gland. Twenty years before a tumor had been removed from the same situation, which soon re-appeared as a small, hard tubercle under the ear. After remaining stationary fifteen years it increased, till at the time of his visit it had attained the size of a hen's egg, was of a bluish color, lobulated, and having a hard base surrounded by small cysts, pushing upward the lobe of the ear, and extending inward so as to involve the lower half of the parotid gland. Upon consultation, it was thought best to attempt its removal without ligature of the carotid.

The patient being under the influence of ether, the tumor was removed by a very slow and careful dissection; its base had undergone osseous degeneration, and involved the facial nerve, causing a paralysis of his face. In a week he was able to return home.

CASE III.—The patient was a farmer, 52 years old. Twenty-five years ago a tumor made its appearance in front of the ear. This imperceptibly increased, giving him no pain or inconvenience until two months since, when it was injured by a blow, and since then has rapidly increased in size. The night after the blow, he perceived that there was some insensibility in the skin in front of the tumor. For some time past he has been unable to close the right eye. "Now, there is an oval, prominent, even, well-defined tumor in front of the right ear, overlying the ramus of the lower jaw, and occupying the position of the parotid gland. Its long axis is parallel with a line drawn from the angle of the jaw to the external angle of the orbit. Its greatest length is three inches, width two inches. Upper margin is on a level with the angle of the eye; lower margin with the angle of the jaw; posterior is overlapped by external ear. Integument is movable; not discolored. Tumor is of firm consistence; not tender on pressure; not attached to bone, yet but slightly movable. Does not move with lower jaw; cannot be felt in mouth. There is much numbness of

cheek in front, and a dull, but not severe pain in the tumor itself." —*(Hospital Record.)*

When the patient entered the Hospital, one or two glands in the neighborhood of the tumor were enlarged, apparently from the effect of some irritating application he had made for the purpose of discussing it. Under treatment, these, with one exception, disappeared. He was extremely desirous of having the tumor removed, and on a consultation of the surgeons it was decided that the attempt should be made.

The patient being etherized with chloric ether, an incision was made from just above the superior border of the tumor to a little below its inferior part. This was crossed by another incision commencing at the mastoid process, and terminating on the cheek. The fibrous capsule of the gland was now cut into, and the tumor gradually loosened by dissecting carefully around its circumference. Its adhesions were so close, and the texture so firm, that it was found impossible to proceed but with great caution; the vessels that were divided under the edges of the tumor being secured with much difficulty. The tumor was first loosened from its attachment to the zygomatic process, then dissected from the masseter muscle, the transverse facial artery and the parotid duct being cut away at this stage of the dissection. It was next detached from its firm adhesions to the sterno-mastoid muscle and mastoid process, and its adhesions to the ear cut off. Finally, by means of the blade and handle of the knife it was separated, from before backward, from the great artery and vein which lay imbedded in its posterior wall, the latter being cut and tied. Four or five arteries required ligatures. An enlarged gland in the neighborhood was removed separately from the tumor.

The mouth was found paralyzed after the operation. The eye, which the patient was unable to close before, either in sleep or when awake, was found, a few days subsequent to the removal of the tumor, to drop down so as partially to cover the eyeball when he was asleep.

An examination of the tumor, after its removal, showed it to be the parotid in a scirrhous state, the microscope disclosing an abundance of cancerous cells; with it was included a lymphatic gland imbedded in its lower and under portion.

The presence of the parotid duct and the facial nerve in the tumor now shown, together with its anatomical relations, left no doubt as to the organ diseased.

CASE IV.—*Melanotic Disease of the Parotid Gland.* C. L., a seaman from Maine, unmarried, 25 years of age, entered the Hospital in 1852 with a melanotic tumor. For three years previous he had had a small black fungus upon the right cheek in front of the ear, and about a year previous the glands of the neck became somewhat irritated.

At the time of his admission there was an irregular, lobular tumor, the upper part of which was surmounted by a black fungus as large as a walnut, occupying the right parotid region, where it was slightly movable, but descending below and behind the angle of the jaw, where it was immovable.

The patient being under full etherization, the tumor was surrounded by an elliptical incision, and the dissection commenced. Blood, however, followed every stroke of the knife, and poured from the whole surface of the tumor, so as only to be checked, and the further prosecution of the operation allowed, by applying the freezing mixture and constant compression of the carotid. After the removal of some easily detached portions, by the advice of the surgeons present the operation was finally terminated by transfixing it at the base with a very strong double ligature, and tying it in two segments. Previously to this many ligatures were placed on bleeding vessels, and the hæmorrhage was very large; in short, wherever the tumor was cut or broken, a great amount of thick granular fluid, of a jet black color, flowed out.

Upon partial recovery from the effects of the ether, hæmorrhage from the tumor continued to such an extent as to render it necessary to again encircle the base by a strong ligature. The tumor ultimately returned.

CASE V.—A married man from Nova Scotia, 58 years of age, entered the Hospital in April, 1854, with a parotideal tumor of twenty-six years' standing. This tumor was situated on the left side, and came on without any known cause. It extended downward, lifting up the lobe of the ear, partially closing the meatus, and causing some deafness. The integument over it was injected, but not adherent. The pain for a short time had been severe, preventing sleep. It was considered of so formidable a character, that the surgeons to whom he had applied declined interfering with it.

The patient being etherized, the tumor was removed by a crucial

incision through the skin, followed by a careful dissection, and was terminated without the ligature of the carotid artery. The hæmorrhage was very free, and the dissection could only be prosecuted by stopping from time to time, and applying the freezing mixture, so as to allow an inspection of the parts to be divided. It was found to consist of hypertrophied glandular tissue.

In a short time he was discharged well, and when heard from on Nov. 6th, 1856, he was in good health.

Case VI.—Mrs. B., 37 years of age, applied to me in the month of November, 1853, with a tumor occupying the seat of the parotid gland. It had appeared first two years since in front of the ear, and in its increase had extended downward and under the ear, lifting up the lower part of that organ. It was a little movable, and did not project much from the surface beyond the surrounding parts. It appeared firmly attached below, was somewhat lobulated, and imparted a sense of elasticity to the touch. Her father died of cancer.

The tumor was exposed by a careful dissection, but on its investments being cut into, a granular matter like cancer exuded from it, and the hæmorrhage was very violent, welling up as if from the carotid, or some very large vessel. It was therefore found necessary to terminate the operation by the ligature en masse, as in the case of the melanotic affection.

The disease, examined under the microscope by Dr. Shaw, exhibited well-marked cancer-cells.

The subsequent history of the patient was not learned.

# EJECTION OF NUMEROUS LUMBRICI FROM THE MOUTH: IMPACTION OF THE SMALL INTESTINE WITH LUMBRICI.

BY WILLIAM W. MORLAND, M.D.

Read before the Boston Society for Medical Improvement, June 8th, 1857.

THE following cases furnish certain facts relative to the *Ascaris Lumbricoïdes*, its presence in the intestines in unusual numbers, without corresponding symptoms; its modes of exit and some of its habits.

On the 14th of January, 1857, I visited a female child, 4 years old, and found her very completely covered with the rash of scarlet fever; there could not be a fuller eruption, nor a color more perfectly scarlet; the tongue presented a remarkably fine specimen of the "strawberry tongue." For a week, the little patient was quite ill, yet no very alarming symptoms were present. The most unpleasant ones were rather marked somnolence—for one or two days amounting nearly to stupor—and mild delirium at night. Diarrhœa was troublesome for a day or two—although, at first, a laxative was required. The throat was but slightly sore, and was never complained of. Spirit of nitrous ether was given occasionally, the skin was sponged with tepid water, and one day, when the diarrhœa seemed excessive, a little paregoric was directed, two or three doses answering every purpose. The case did well after the lapse of a week; the child, however, became very deaf, and even yet has not recovered her hearing fully. Although feeble for some weeks, she is now quite well and has gained flesh and color.

The case is mentioned chiefly for the purpose of recording an occurrence which is somewhat unusual, viz., the ejection of nume-

rous lumbrici from the mouth. It is well known that, occasionally, one or two of these parasites will make their exit from the body in this way, although it is far more common for them to pass off otherwise, or to lie for a long period in the bowels, and sometimes in large numbers.

Within five days, the above patient ejected 16 lumbrici from the mouth, and some days subsequently, 3 more were passed *per anum*. At the time of voiding them from the mouth, a slight cough occurred, with an effort, sometimes a difficult one, to throw off something—and which was followed by the discharge of one or two lumbrici—never more than two at once. They were all alive when ejected, and most of them of, or above, the average size. All but three of them were, in circumference, of the size of a quill or a pipe-stem ; and the longest was stated by the mother to be at least one quarter of a yard long. The worms appeared first, two or three days before my attendance—although, previously, whilst living on Prince Edward's Island, whence the family lately emigrated to this city, she had passed some *per anum*. On noticing them again, here, the mother sent to a druggist's shop for "worm powders," and a greyish powder, according to her, was given, which probably was calomel. Two or three worms were "vomited" (to use the mother's expression) before the powders were given, and it was not until three or four days after their administration, that the parasites began to be so regularly and abundantly emitted from the mouth. For eight days the child took little or nothing but liquids; and the supposition of the mother that its "empty stomach," and starvation of the parasites had more influence than the powders, has no little plausibility. Her words were, that the discharge of worms "was not altogether from the effect of the powders, but they (the worms) merely crept out of her on account of her empty stomach."

I do not remember to have seen any account of *so many* lumbrici coming *from the mouth* in *so short a time;* although the fact of their egress, alive, and their remaining so for an extraordinary time, has long since been noted. Thus, Heberden *(Commentaries on the History and Cure of Diseases)* says, "the round worms will come up alive into the mouth, and I have known them to live two or three days after they were come out." *(Op. cit.*, p. 234.) Again, he remarks, "the round worms and ascarides would sometimes hardly be suspected, if they were not discovered

by the itching of the fundament, or did not appear among the fæces." *(Loc. cit.)*

It is an interesting question, whether locality or certain kinds of diet have an influence in largely producing, or rendering more active, these parasites. This has been asserted, and the greater abundance of them in certain places would seem to warrant the belief. It has been stated that the patient whose case has been narrated, lived on Prince Edward's Island. On inquiry of the child's mother, I find that the ascaris lumbricoïdes is exceedingly common there, both in adults and children; and she has known them sometimes to be thrown from the stomach alive—but never in such numbers, at once, as in the case of her child. She is cognizant of several instances where as many as 100 lumbrici have been discharged by children of about two years of age.

It has recently been suggested that a *vegetable* diet tends to the development of intestinal parasites, and notably of lumbrici. Mr. Perry, of Droxford, England, who reports the discharge of 37 lumbrici at one time, some of them a foot in length, after a dose of three grains of *santonin*, followed by an aperient powder, remarks as follows upon the use of vegetables in reference to the verminous affection.

"The persons who reside in the locality in which I have met with these cases, are very poor, and, from the high price of bread this winter, have had recourse to vegetables of the commonest description, as an article of food, which will account for the presence of worms in the alimentary canal."*

The same writer reports the discharge of between 40 and 50, and "in a family of four, 124 worms at one time, and many more afterward," one dose of *santonin*, followed by an aperient, having been taken. He speaks highly of this remedy, which, it would seem, has been but sparingly used hitherto. It may be found, elegantly prepared by a French pharmaceutist, at Messrs. Metcalf & Co.'s in this city.

To the question proposed by me to the mother of the patient, whether persons living on Prince Edward's Island, and who were troubled with worms, consumed more vegetable than animal food, the reply was, "We knew a family that ate as much meat as others, that was very subject to worms." From all I could learn by col-

* *Med. Times and Gazette*, May 17th, 1856, p. 492; quoted in *Braithwaite's Retrospect*, Part 34th, pp. 103–4.

lateral questioning on this point, it seemed impossible to predicate anything on the ground of *diet*—which latter seemed to have been as varied as is usual amongst the laboring, or even the better classes, here.

Guersant remarks *(Dictionnaire de Médecine, en trente tomes,* Article, *Vers)* that, by the testimony of many, the ascaris lumbricoïdes is far more common in summer and autumn, wherever much fruit and vegetables are eaten; especially when the influence of this vegetable diet is not counterbalanced by the use of wine and salt. He notices the fact that lymphatic subjects are those most frequently a prey to intestinal worms, and females more commonly than males. The little girl above referred to, is very decidedly of the lymphatic temperament, as are all the family.

With respect to the numbers of the ascaris lumbricoïdes expelled from the intestines, there is every variety. Besides such as have already been mentioned, Dr. Durkee, of this city, has lately given me the description of a case where 82 lumbrici were passed *per anum*, in the course of a month, after the exhibition of anthelmintic and tonic medicines. The patient was a child between 3 and 4 years of age, and Dr. D.'s services were solicited on the appearance of a single lumbricus, which crawled out of the mouth. The child had been pale, fretful and restless at night, with anorexia and a degree of emaciation; the abdomen tumefied. Recovery ensued.

In a case observed by M. Charcelay *(Dict. de Méd., loc. cit.)*, 37 lumbrici were found rolled into a mass, and obstructing the small intestine. Sixty-eight were similarly observed by Guersant.

In the following very remarkable case, an account of which has been kindly furnished by Dr. Benjamin Cox, Jr., of Salem, a larger number was discovered in a single subject than has hitherto been reported, within my knowledge; and the case is the more worthy of attention, from the great obscurity of the symptoms as related to their cause—none being ever fairly referrible to the presence of the parasites.

"On Wednesday, June 4th, 1856, I was consulted by Mr. —— respecting his daughter, a very intelligent child, between 11 and 12 years old. From his account of her symptoms, I inferred that she was suffering from temporary derangement of the stomach. At supper the previous evening, she had a craving appetite and ate

more than she usually did at that meal. No food of an objectionable nature was taken, except a small piece of Bologna sausage. After tea, she walked out with one of her friends, made some calls, was very cheerful and happy, and appeared perfectly well. During the night she had pain in the stomach, and nausea, and finally vomited, wholly undigested, the bit of sausage, &c., she had eaten at tea-time. Supposing, from his description, that it was a common case of indigestion, I gave her father such directions for her relief as I thought proper. The next day, June 5th, I received a message to visit her. I found her below in the parlor, dressed, sitting in a comfortable rocking chair, and looking so natural and well, that, had I not known she was my patient, I should not have suspected that she was ill.

Upon examination, I found serious and alarming symptoms, for which, after a patient and thorough investigation, I could not account. These were an unnatural coolness—I might perhaps more correctly say *coldness*—of the face, neck, and of every part of the skin unprotected by clothing, and also of the extremities, yet without any feeling of coldness on her part; extreme thirst, without dryness of the mouth or coating of the tongue; a frequent, quick and *exceedingly small, feeble, thread-like pulse*, the slightest pressure of the finger rendering it imperceptible.

She appeared to be well nourished, and was as fleshy, and her muscular system as well developed, as in most girls of her age. The color of the skin, and of the mucous membrane of the mouth, was natural. The functions of the brain were all well performed. The respiration was normal. There was nothing unnatural in the sounds of the heart; its pulsations were frequent (130 per minute), and its impulse was very feeble. She had but little appetite, and was unwilling to take food, on account of its exciting nausea, or vomiting, or both. The abdomen was flat. There was no pain or tenderness there on pressure. Nor were there symptoms indicating any trouble in the liver, or in the urinary organs. Upon inquiry at this and at subsequent visits, I learned that her health had been uniformly good, except that for the last year or two, she had suffered about once a month, and then for a day only, loss of appetite, nausea, vomiting and slight diarrhœa.

Her father usually gave her for these "worm turns," as he considered them, a little sage and senna in powder, and she almost always at these times discharged some *ascarides*, but never in

large numbers, and *never* any lumbrici. There had been no unnatural hue of the face, no livid circle about the eyes, and nothing peculiar in the appearance of the countenance, except when she had the monthly ill turns; then, for the day, the features were pinched and sharp, as if she had lost flesh. The appetite, with the exception above mentioned, had not been diminished, irregular, or capricious. The breath, most of the time for the last year, had been very fœtid, but at the time of my visit, and through the whole of her last illness, it was not so. The abdomen never had been tumid; she never had had colicky pains, had never complained of itching of the nose or anus, and, on being questioned, said she had never experienced it, and that her bowels were usually regular. She had never been subject to drowsiness, nor had restlessness at night. She had always been a good sleeper, and was bright and wakeful in the day. She was of a nervous temperament, but was naturally amiable and lovely in her disposition. This disposition had not been disturbed by her illness. She had not been fretful or impatient.

The probability that worms in the intestines occasioned the alarming symptoms, was suggested by some of the family. But I had been taught by the highest authorities, and my own observation had confirmed the truth of the doctrine, "that though worms in the intestines do sometimes give occasion to grave symptoms, yet instances of this are extremely rare." Besides, nearly all the symptoms which are commonly thought to denote the presence of intestinal worms were absent. After considering all the circumstances of the case, I concluded, notwithstanding the condition of the skin and of the circulation, and my serious doubts respecting the need of a vermifuge, to administer a cathartic. I directed a powder of calomel and rhubarb, to be followed every three hours, till it operated, by a dessert-spoonful of a mixture of castor oil and turpentine, of each half an ounce, and of the mucilage of gum arabic, one ounce. I also directed the free use of brandy and beef-tea; of opiates if they were required, to relieve pain, to procure sleep, or to check any undue operation of the cathartic; and of warm, dry applications to the skin.

Friday, 6th.—I was much surprised to find my patient in the parlor and dressed, she preferring to be below with the family during the day, rather than in bed. She had suffered no pain, but had been quite restless at times; had slept quietly. The powder

and one dose of the mixture were retained; other, and smaller doses of the turpentine, were immediately vomited. She had had several small, thin, dark-colored evacuations, with but very little solid fæcal matter. In vomiting, she had thrown from the stomach, with the turpentine mixture, *five round worms;* none were voided from the bowels. Everything she took into the stomach immediately excited vomiting, except diluted brandy; this remained for a while, but was finally ejected. Cold water and ice were most grateful to her taste, but had no effect in relieving the insatiable thirst.

The temperature of the skin during the night, when she was in bed, remained cold, as it was yesterday, and is the same now while she is in a heated room and wrapped up in warm blankets. The pulse, at this visit, was more frequent (140 to 150) and feeble, and it required great care, and lightness of touch, to count it.

Strange as it may seem, notwithstanding the insatiable thirst, the vomiting, the abstinence from food, or rather the inability to retain it, the coldness of the skin, and the almost imperceptible pulse, she did not look like one seriously ill. This appearance of health, this almost entire absence of anything morbid in her expression, was, I think, one of the most remarkable features of the case. She had, this morning, without any apparent exhaustion, walked from her chamber, down one flight of stairs to the parlor. She made no complaint of pain, weariness, or debility; she was buoyant and cheerful in spirits. Yet it was evident that she was fast sinking, and must soon die, unless a favorable re-action speedily took place. To quiet the irritable stomach, solid opium, in frequently-repeated doses, was directed; also the continued use of brandy, beef- or chicken-tea. Bits of ice dipped in brandy were grateful to her, and afforded momentary relief from the extreme thirst. Hot and stimulating fomentations were applied over the abdomen.

Saturday, 7th.—The only material changes since yesterday, were an increased frequency and weakness of the pulse, and greater exhaustion. The pulse was so feeble, and so nearly imperceptible, that I could only judge of its rate (160 to 170) by catching a few successive beats now and then. The skin was not so cold. The thirst, nausea, and occasional vomiting, when anything was taken into the stomach, continued. She had again, although nearly pulseless, walked from her chamber to the room below. In general appear-

ance she had not very perceptibly altered since Thursday. I had yielded to her wish to be below; I now directed her to be placed in bed, and kept there. The same general treatment, with the addition of some diffusible stimulants, was continued. Her friends were apprised of her danger, and a consultation was requested by me.

At 5, P.M., I saw her in bed for the first time; the pulse at the wrist could not be counted. Applying my ear over the heart, I found its pulsations to be about 180, and so faint that very careful attention was required to hear them. Her mind was not disturbed in the slightest degree; she was cheerful and free from pain. At my morning visit, in passing my hand over the abdomen and finding it "caved in," I said to her, you have no belly. Now, as I turned down the bed-clothes to examine it again, she jocosely and laughingly said, "Doctor, I think you will find belly enough now." I mention this little circumstance to show her state of mind, and her freedom from suffering. I found the abdomen somewhat distended by flatus; there was no tenderness on pressure, except in the right iliac region. There I found a well-defined tumor, apparently as large as a common orange; flat on percussion, over a space of two or three inches in diameter, and extremely sensitive to the touch, so that she was very reluctant to have it examined. She said she had often had pain catch her there when she was running, or playing with her schoolmates, and had been obliged sometimes to stop and press upon the part, when the pain would suddenly cease.

It is unnecessary to mention what my speculations were about this swelling, or the connection it might have with her present disease. It is enough to confess that it did not occur to me, that this painless, yet acutely sensitive, tumor might be a *mass of worms*. In an hour or two after this visit, I saw her again with my friend, Dr. M. Her general condition was the same. I was much surprised, and, I must honestly confess, a good deal chagrined, to find that the recently-discovered tumor, which I had so particularly described to my consulting friend, had vanished, and with it all tenderness; nothing unnatural could be seen or felt anywhere about the abdomen, except the slight distension by flatus.

Sunday, 8½, A.M.—She is moribund. In the early part of the night she was wakeful; later in the night, and toward morning, she slept quietly. She was free from pain and suffering, and perfectly conscious till about two hours before death; then, after a

fit of vomiting, she was much exhausted, gradually sank into a comatose condition, and died between nine and ten o'clock, A.M.

Examination six hours after death. Body slightly emaciated; not much rigidity.

Brain not examined. Thoracic organs healthy.

Peritoneum and abdominal cavity healthy.

The glandular organs of the abdomen were healthy.

Mucous coat of the stomach healthy, with the exception of three or four patches of a brighter red than the surrounding parts; not softened.

Mucous coat of the intestines, throughout its whole extent, of a decided dark-red hue, without any softening, perforation, or lesion of any kind.

The stomach and the whole alimentary canal were completely void of their usual contents; hardly a particle of fæcal matter could be seen in the large intestines.

365 common round worms *(ascaris lumbricoïdes)* were found, principally in the small intestines, not more than 8 or 10 being below the cœcum.

Before opening the intestine, we pushed the mass of worms upward together, and they formed a solid roll or sausage (I use this word that you may better understand my meaning) *more than three feet in length.* The greater part of them were alive at the time of the examination."

Very serious accidents are enumerated by writers as arising from the presence of lumbrici in the human intestines—or rather, more frequently, from their attempts at exit, or their precipitation into the abdominal cavity, through perforations made by themselves, or accidentally, as by abscess, &c.

When they have crept upward into, and out of, the stomach, it has occasionally happened that they have caused asphyxia by wandering into the trachea; or, if in masses, and thus introduced into the stomach and œsophagus, the same result is believed to have been produced, in infants, by their pressure upon the trachea.

Guersant announces the following "characteristic symptoms" of *verminous asphyxia.* "Anxiety, agitation, dry cough, cries, threatened suffocation, painful sense of tearing, pricking sensations, and a feeling as of burning along the course of the trachea and about the origin of the bronchi, toward which regions the patients always

carry the hand." On dissection, in a case of this nature, M. Arronssohn found a lumbricus lying across the bifurcation of the trachea; the mucous membrane of the air-passages showed injection and slight superficial erosion. *(Dict. de Méd.)*

Perforation of the *appendix cæci* by these dangerous intestinal inhabitants has been noted; and other portions of the small intestine have been traversed by them, as testified by Gaultier de Claubry, Becquerel and others.

In this connection, the propensity of the lumbricus to insinuate itself into narrow canals and apertures, may be referred to. Thus, besides the *appendix vermiformis* (a somewhat appropriate hiding-place, so far as the name goes), instances are authentically stated of its penetration into the internal ear by the Eustachian tube; into the biliary canals *(Guersant, Laennec, Cruveilhier)*, and thus being found in the midst of an hepatic abscess* *(Tonnellé)*; into the pancreatic duct *(Gmelin)*; between the folds of the great epiploon, after passing through the *foramen* of Winslow, having perforated the *appendix cæci*. There has recently been exhibited to the Society, an illustration of this curious exploring tendency, from a patient of Dr. Stocker of this city, the lumbricus being entrapped in one of the apertures of a dress-hook, and thus discharged from the bowels under the influence of a purgative. (See Society's Records, Vol. III., p. 81.) Indeed, a half serious proposition was made, some time since, to catch these parasites by some sort of *baited noose*—thus taking advantage of the above-mentioned proclivity.

Bretonneau records a case where the intestine was blocked by a mass of lumbrici, and which caused death in a young child, but the number is not given; it is mentioned that the mucous membrane around the obstruction was softened and nearly destroyed by the friction of the worms. There had been violent pains, nausea, constriction of the œsophagus, convulsive movements, and a sensation of being gnawed, internally, by something living.

In the case communicated by Dr. Cox, the remarkable points are, the obscurity of the symptoms and the immense number of lumbrici found *post mortem*; and which seem to entitle it to the designation of *unique*.

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* Guersant suggests that the sudden introduction of lumbrici into the biliary canals, may well cause fatal convulsions.

[Dr. COALE stated that on board a United States ship, while crossing the Pacific, after being stationed on the China coast, many instances occurred amongst the crew of the egress of lumbrici from the mouth. While at anchor, the diet of these men had been almost exclusively of a vegetable nature; but, as two months had elapsed after the ship left the coast, before the occurrence of these cases, Dr. C. thought it questionable whether this could have had any influence in their production.

Dr. Coale also referred to a case, lately mentioned in one of the Southern medical journals, where the small intestine, for a space of two feet, was closely impacted with lumbrici.

Dr. STRONG alluded to the frequency of such cases in Spanish America.

Dr. CABOT had seen, in Central America, a child lying dead upon a bier in the open air, as is the custom of the country, with its mouth and nose filled with these worms. He stated that they were a common cause of death there.

With regard to the origin of these parasites, Dr. GOULD thought that as certain individuals, as well as certain families, are peculiarly obnoxious to them, it can hardly be attributed to germs received into the body from without. He alluded to the fact that the lumbricus had been found in the fœtal intestine.

As to the influence of vegetable diet in predisposing to lumbrici, Dr. STORER mentioned the opinion expressed by Dr. Miller, some years since, in this Society, as being unfavorable to this notion.—SECRETARY.]

# CASE OF

# IMPALEMENT UPON A HAY-HOOK.

BY J. P. MAYNARD, M. D., DEDHAM, MASS.

Read before the Boston Society for Medical Improvement, July 27th, 1857.

On the 9th of May last, I was called to a young girl (Miss G. W.) 11 years of age, who in sliding down a hay-mow fell upon a hay-hook, the portion penetrating her body being of the shape represented in the engraving, and of the size mentioned in its description. The instrument had entered just in front of the sphincter muscle—rupturing the perinæum, perforating the fundus of the bladder, and, passing among the small intestines, made an external wound through the abdomen three fourths of an inch in width at the left side of the umbilicus. Being absent at the time of the accident, my friend Dr. Stimson was in the meanwhile sent for, and had skilfully withdrawn the weapon just previous to my arrival. At the request of the family, the patient was placed under my care.

I found her extremely prostrated, with a scarcely perceptible pulse, great jactitation, and in a state of collapse. Stimulants were promptly administered, and continued at regular intervals. During the night she had slightly rallied, though the extremities were still cold. Violent and frequent vomiting had protruded a portion of the omentum through the wound at the navel, which was with difficulty returned within the integuments, and the opening being then securely closed with collodion, it did not again escape, though the vomiting continued for some hours afterward.

On visiting her the next morning at an early hour, the pulse was found to have gained slightly in strength, the skin had become somewhat warmer, and re-action was evidently taking place. Some tenderness of the abdomen existing, hot fomentations were kept constantly applied.

Deeming it of the first importance to keep the intestines in a quiescent state, repeated doses of the sulphate of morphia were administered for that purpose, and were successful in restraining any natural evacuation for a period of seven days, at the expiration of which time it was thought safe to allow them to be moved by injection.

A. Supposed extent of penetration. Length of portion supposed to have penetrated abdomen, eleven inches.

B. Diameter across, nearly two inches.

C. Five and a half inches from point to end of hook.

The patient had not, since the accident, passed any water through the urethra, but the urine constantly dribbled through the ruptured bladder, and discharged itself, together with what was apparently fæcal matter, from the small intestines, into one cloaca, through the vagina. From time to time narrow thread-like strips of cellular tissue (probably from the walls of the bladder) protruded through the vagina, one or two of which being found adherent at their distal extremity, were not withdrawn, but were allowed to slough off.

On the fifth day from the accident, symptoms of peritoneal inflammation made their appearance, which in spite of treatment increased to an alarming extent, but at the end of thirty-six hours began to yield. The pulse gradually fell from 150 to 98, and the abdomen, to which the weight of a single sheet had been previously uncomfortable, would now bear a slight pressure of the hand without pain. The urine continued to discharge itself exclusively through the wound in the bladder, while the amount of what appeared to be partially elaborated fæces, diminished daily.

As soon as the extreme soreness and lacerated condition of the

parts had sufficiently subsided to permit, I passed a small-sized gum-elastic catheter through the urethra, withdrawing a very small amount of urine, and left it to prevent the urine accumulating and thereby interfering with the union of the edges of the fistula. This being occasionally repeated, the amount passing through the false opening daily decreased.

During the third week, the patient steadily improved, and all the symptoms of imminent danger were disappearing, when, on the twentieth day, she was attacked with severe and sudden pain midway between the umbilicus and pubes, which continued throughout the night. Anodynes and external appliances slightly relieved the pain, but still there was great tenderness to the touch, the pulse was 150, the tongue greatly coated, and the appetite extinct. During the succeeding twenty-four hours a remission of the symptoms occurred—the pulse falling to 120, the countenance less anxious, and the tongue more moist and clean. Everything again progressed favorably, and at the end of a month from the date of the accident, she was able to sit up one half of the day. The discharges from the vagina were less frequent, the bladder being able to retain all the urine secreted during a period of twelve hours, before any would escape through the wound.

The patient having sufficiently recruited to admit of attempting, by surgical means, the closure of the internal fistula, I decided to endeavor to favor the agglutination of the hardened edges thereof, by means of cauterization with the nitrate of silver. Accordingly, on the 11th of June, having chloroformed the patient, I introduced within the vagina a small bivalve speculum, of about five eighths of an inch in diameter when closed. I found the mucous membrane of the vagina in an inflamed condition, the laceration in the bladder plainly visible, and above, and to the rear of this, what appeared to be the wound connecting with the intestines. The effects of the chloroform beginning to subside, prevented further investigation; the vesico-vaginal fistula, however, I freely cauterized, as well as the other wounded surface. During the succeeding twenty-four hours, some pain was experienced from the caustic applications; otherwise, the patient remained in a comfortable condition.

After the cauterization, the urine passed freely through the urethra and none through the fistula, and there were no further appearances of anything resembling intestinal secretions.

June 21st.—Ten days having elapsed without the occurrence of

any unnatural discharges through the vagina, and the patient being able to ride and walk without inconvenience, she was deemed convalescent, and further regular attendance ceased.

July 17th.—I have now to add to the above notes on this interesting and anomalous case, that for three or four days the patient has been troubled with some diarrhœa, and makes complaint of occasional sharp pains in the abdominal region. Astringents employed and continued for two or three days have no control over the discharges (tincture of muriate of iron, acetate of lead, opium and ipecac, and opiate injections). They rather increase in number and quantity. Vomiting now succeeds the diarrhœa and becomes extreme and constant, and all remedies are ineffectual to allay it (creosote, hydrocyanic acid, sinapisms to stomach, &c.). Even small lumps of ice occasion vomiting, and everything is rejected, whether administered by the mouth or rectum. The peculiar pinched expression of the face announces impending dissolution, which occurred on the 23d of July.

A *post-mortem* examination was made on the succeeding day, twenty-four hours after decease, by Dr. J. B. S. Jackson and Dr. Calvin Ellis. The following account of it is furnished by Dr. Jackson.

Externally, nothing unusual was found, excepting the laceration of the perinæum and the cicatrix near the umbilicus.

In the upper and anterior part of the vagina an opening was found that communicated with the bladder not far from its outlet; it was direct, and, when forced open, not more than two lines in diameter; edges smooth, firm, and perfectly cicatrized. Left to itself, it appeared upon the vaginal surface like a marked indentation, and amongst the folds of the bladder it might readily have been overlooked.

The bladder contained a calculus, but no urine nor fæces. Its parietes were quite thick and muscular, and its inner surface of a dull-red color, and smeared with a moderate quantity of a whitish, puriform secretion. At the fundus it adhered to the small intestine to the extent of about one third of an inch, and at this part it felt quite thin.

The point at which the intestine adhered to the bladder was three feet and one inch from the cœcum; and it was very slightly folded or gathered in upon itself, the folds being externally adherent to each other. Amongst those folds was a direct opening

from the intestine into the bladder, and about as large as that from the vagina.

A portion of the omentum, about half an inch in diameter, was found between the rectus muscle and the cicatrix above referred to. It was closely adherent to the surrounding fat, and to the opening in the muscle through which it passed. Within the abdomen, also, the portion of omentum with which the above was connected, adhered to some extent from the opening in the muscle upward.

The above adhesion, and the one between the intestine and bladder, were old and strong. Some portion of intestine also adhered in the pelvic cavity; but it readily separated on handling the parts, and the point of adhesion, for it was nothing more, could not be discovered. These were all the old adhesions that existed, and there were no traces of recent inflammation. There were, however, a few spots in the pelvis and about the adherent portion of intestine, apparently a mere discoloration of the serous surface; they were one or two lines in diameter, quite defined, and of a coal-black color.

In the cellular tissue of the pelvis, upon the left side, between the muscles and the internal organs, and about as high up as the upper part of the vagina, there was found a trace of healthy pus; but the inflammation was very limited in extent, and confined to the above tissue.

No other appearances were found connected with the injury, the rectum being perfectly healthy, and the vagina sufficiently so, excepting the opening into the bladder. The other organs of the abdomen, and also those of the thorax, were carefully examined; but nothing unusual was found, excepting a moderate development, and to a considerable extent, of the solitary glands of the small intestine.

*Analysis of the Calculus, by* Dr. Bacon.—The calculus weighed eight and three fourths grains, before the removal of a portion for analysis. It measures three eighths of an inch in thickness and nearly three fourths in length. The exterior is rough, with small tubercular projections.

On section, the calculus proves to be hollow. The shell is about a line in thickness, and is composed of triple phosphate and phosphate of lime, with considerable animal matter. The large cavity

within contains only a thin, shrivelled membrane, loosely adherent to the walls.

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To the question, what was the probable origin of the stone found in the bladder, Dr. Cabot replied that he had, in several instances, seen calcareous masses come away with the shreds of membrane after the operation for vesico-vaginal fistula; he had never seen a perfect shell like the one in this case, and suggested that it might have formed around a slough at first suspended from the fundus of the bladder by a slender membranous thread, it afterward becoming detached.

Dr. Bacon remarked that the stone was evidently one of rapid formation.

Dr. Maynard, in this connection, made allusion to cases of a similar nature that had been from time to time reported. One of the most recent of these, the Society are familiar with, occurring in the practice of Dr. Sargent, of Worcester, and reported by him in October, 1853. A number of hay-hook cases, by Dr. Z. Howe, of Billerica, were published in the Boston Medical and Surgical Journal in March, 1840. There are also some remarkable instances of impalement by various means which were referred to by Dr. Coale, at the October meeting of this Society in 1856.

On referring to the above-named cases, as well as other sources, I find none that so closely resembles in some points the one I have reported, as that mentioned in the *Dict. des Sciences Med.*, p. 46, also alluded to by Columbat d'Isere. A young woman, 20 years old, sliding down a hay-cock, fell upon a sharp stick armed with a lateral hook, the handle resting on the ground—a hay-hook being evidently described, the size and form being similar to the one represented in the drawing. In the case quoted, however, the weapon only penetrated about six inches, and there was no evidence of any serious injury being inflicted.

In comparing all the recorded cases to which I have been able to obtain access, with the one I have presented, its peculiar feature seems to consist in the number of organs and tissues involved in the laceration, the apparent recovery from the effects of the injuries, the subsequent relapse, and death after the prolonged period of seventy-three days from the accident.

# PUSTULAR ERUPTION OF THE SKIN;

## THE PUSTULES CONTAINING LARVÆ.

BY DR. S. MITCHELL, CAMERON MILLS, N. Y.

Read before the Boston Society for Medical Improvement, September 28th, 1857.

THE following history of the case, communicated by Dr. S. MITCHELL, of Cameron Mills, Steuben County, N. Y., was read to the Society by Dr. MORLAND.

Dr. Mitchell was sent for on the 28th of July, 1857, to attend Mrs. T. F. in labor. "She was delivered of a healthy, female child." On the 4th of August a messenger desired Dr. M.'s services for the child, "stating that it was covered with sores which were alive with worms." "On my arrival," writes Dr. M., "a worm was shown to me, which the friends had extracted several hours previously. It very much resembled a common maggot, being white, large at one end, and terminating in a point at the other. It was about one fourth of an inch in length, and extremely lively; for, on placing it in the palm of my hand, and attempting to put a magnifying glass over it, so rapid were its movements that I could with difficulty get a view of it. I found the sores to be a kind of papulous eruption, occupying the scalp, face, neck and back. The papules varied in size, and rested upon a circumscribed and inflamed base. Upon the summit of each of these conical elevations there was a small quantity of puriform fluid, just beneath the epidermis, and in which was visible a live maggot, maintaining a constant wriggling motion."

"With a pair of sharp-pointed dissecting forceps, I extracted quite a number of these worms, and they were all as active as the one first shown to me.

"On removing the cuticle, the maggot appeared to be contained

in a little pit, or depression, resembling that of the grub found on the backs of cattle, beneath the skin. When disturbed, it would retract itself, until it disappeared. I extracted no more than two from any one of the papules; most of them contained one only.

"I saw one or two of the papules (or pustules) before the formation of the inflamed base. The skin then appeared nearly natural, the maggot being seen just beneath the cuticle, in almost constant motion.

"The question arises, when and how the germs of these strange creatures were thus deposited? No eruption was noticed upon the child until the day before I visited it.

"I applied spirits of turpentine to all the worms I was unable to remove. This speedily eradicated them, and the child is now (August 14th) well. I enclose specimens of the worm for your examination."

The first specimens were received in a damaged state, owing to the breaking of the phial containing them. On informing Dr. Mitchell of this mishap, he sent me two others which he had preserved, and which arrived safely. These, in common with the first sent, were submitted to Dr. B. S. SHAW for microscopic examination, who has furnished a description, which will be appended.

Dr. Mitchell, in his note accompanying the second set of specimens, says: "They (the worms) would crawl all over the palm of my hand with considerable rapidity, and by the same sort of motion one may observe in the common earth-worm. The specimens were alive when I put them into alcohol, and lived three minutes, by the watch, crawling about on the bottom of the phial. As the patient was but seven days old, I had no means of ascertaining whether there was itching.* No food except breast-milk was taken. I am sorry to say, that I saved but six specimens, as it was in the night that I saw the child, and the worms were removed with considerable difficulty, on account of their retreating into their *holes*, if I may be permitted to use the expression. Several *passes*, with the forceps, at many different times, were necessary before any could be secured. First, the cuticle had to be removed, and this would cause the parasites to disappear. If not disturbed, however, for a few minutes, they would be seen wriggling their

* In reply to a question.

way upward through the sero-purulent matter with which the summits of the papules were crowned.

"Before the cuticle covering the sores was removed, the pustular portion of each was about one eighth of an inch in diameter, with an elevated, inflamed base of from a half to a whole inch in diameter. The sores all healed within a few days after the destruction and removal of the worms."

August 20th.—The child is reported "well."*

Dr. SHAW exhibited one of the *larvæ* under the microscope, and also drawings showing the head and a portion of the body. He then read the following description of them and other similar species.

"The maggots, placed in my hands for examination, seem to be larvæ of some species of fly of the *Musca* family, or of some species of *Œstrus*, a genus of Linnæus, to which belong the bot-fly of the horse, as well as the insects which infest the cow, deer, sheep, rabbit and other animals. As is generally the case in the genus *Œstrus*, these larvæ have the anterior extremity small and pointed, and the posterior extremity rounded or blunt. One specimen only was in a proper condition to be measured, and that may have been affected by immersion in alcohol. Its length was a quarter of an inch, and its diameter a sixteenth of an inch. In the accompanying sketch it is magnified 12 diameters. They are of a white color. The body is divided into eleven segments, exclusive of the head, the anterior portion of each segment being surrounded by a

band of bristles or spines which facilitate their progression. The head is armed with two black hooklets, and is without any visible mouth. Cuvier speaks of the mouth of the cutaneous larvæ as being "composed of fleshy lobes only, whilst that of the internal larvæ is armed with two strong bent hooks." If this is true, the

* In a subsequently-written note, Dr. Mitchell mentions that the mother of the child was very strongly and disagreeably impressed by seeing, during her pregnancy, some salted fish filled with maggots. Faintness and severe vomiting resulted.

natural *nidus* of these specimens would seem to be the internal organs rather than the skin. Humboldt, in his *Essai sur le Géographie des Plantes, &c.*, Paris, 1805, speaks of the existence of larvæ in the skin of the abdomen of the natives of South America and the West India Islands. Rudolphi, in his work on *Entozoa*, speaks of larvæ in the human skin, and says that they remain there about six months, and then, falling to the ground, become perfect insects. I am told by Dr. Weinland, of Cambridge, that similar larvæ are common in Gaudaloupe, where they bear the name of Ver macaque, probably from infesting one of the monkey tribe of this name. Dr. Jeffries Wyman, who has recently returned from Surinam, informs me that some kind of larvæ are found there in the skin of the natives.

"The larvæ of several species of *Musca*, which resemble very much those of *Œstrus*, have likewise been deposited in the human body; for instance, those of *M. vomitoria*—common meat-fly; *M. carnaria*—flesh-fly; and *M. domestica*—common house-fly.

"On account of the very limited duration of their existence as perfect insects, in many of the species, they are rarely obtained for study in this stage; and most of their larvæ, both those of *Œstrus* and *Musca*, having similar forms, number of articulations, hooks, &c., their distinction is recognized only with difficulty. A species of *Œstrus* has been described as *Œstrus hominis*, or *humanus*, by Linnæus, by Gmelin (*Systema* 13), by Olivier in the *Encyclopédie Méthodique*, tom. viii., p. 468, and two cases are given by Mr. Howship, under this name, in the *Proceedings of the Royal Society*, vol. iii., p. 181. This species, however, so far as is known, has only been met with in South America, and when thoroughly studied may prove to be identical with one of those better known. As to the species under consideration, I do not see how any name can be attached to it at present. It may be *Œstrus hominis*, or one of the many species common here in the lower animals, or it may be a *Musca*.

"In endeavoring to ascertain what is known concerning the presence of maggots in the human body, I have met with a great number of cases where the mucous membranes have been infested with them, and with several cases where the skin has been chosen as the *nidus* for the larva or egg. Of the *Coleopterous* insects, such as beetles, meal-worms, &c., there have come to my notice thirty-three cases where their larvæ have been found in the stomach, intestines,

urinary organs, nostrils, and inner canthus of the eye. The larvæ of the *Neuroptera* and *Lepidoptera*, for instance those of some of the moths and of the cadbate of the angler, have been found in similar situations. Of the *Dipterous* larvæ, those of *Musca* and *Œstrus* are the most common; those of *Musca* forming by far the largest number of any one genus, thirty-seven cases being tabulated and reported by Mr. F. W. Hope, in the *Transactions of the Entomological Society*, of London, vol. ii. The species of these maggots was generally unknown; but many were recognized as belonging to the meat-fly, *M. vomitoria;* to the flesh-fly, *M. carnaria*, which like the previous species deposits upon flesh and sometimes in the wounds of persons; and to the common house-fly, *M. domestica*, whose breeding places are vaults and swill-houses. The localities were the stomach, intestinal canal, frontal sinuses, nostrils, eyes, gums and inside of the cheek. An unknown species of *Musca* was reported by Leuwenhoek in 1687, upon the leg, as 'many small maggots.' The genus *Œstrus* seems to be that which most frequently deposits upon the external surface of the human body. Of these cases I have met with two upon the scrotum, two in the skin of the abdomen, two in the scalp, and one in each of the following named situations, viz.: leg, arm, scapula, ear, jaws, antrum and stomach. These larvæ were either called *Œstrus hominis*, or they were described without a specific name, with the exception of one, which was *Œstrus bovis*.

"It is natural to suppose that these flies may, in some rare instances, deposit their larvæ, or ova, upon the human skin or mucous membranes, or that the germs may be taken into the stomach in meat, vegetables, fruit, or even in water. An apparently well-authenticated case of voiding by the mouth of the white cabbage butterfly, *Pontia Brassicæ*, by a boy who had been accustomed to eat raw cabbage, has been given by Mr. Robert Calderwood, of Scotland, in his *Medical Commentaries*, vol. iv., p. 223."

# CAUTERIZATION OF THE INTERIOR OF THE UTERUS FOR POLYPUS.

BY DR. R. K. JONES, OF MARTHA'S VINEYARD.

Read before the Boston Society for Medical Improvement, August 24th, 1857.

Mrs. E. W., of very healthy parentage, mother of five children, of medium stature and good muscular development, dark hair and eyes, enjoyed good general health till January, 1856, when she had a neuralgic affection of the head, continuing about two weeks, after which she was not so robust as previously. The uterine functions had always been normally performed; menstruation ceased, without any constitutional disturbance, in 1854.

In the early part of March, 1856, she had an attack of uterine hæmorrhage. This continued, gradually increasing, especially after exercise, and accompanied with pain in the loins, hypogastric region and thighs. I was called to her for this trouble April 1, 1856. She was then flowing freely, and suffering much from expulsive efforts of the uterus. That organ was enlarged, its neck obliterated, and os closed. She was quite weakened by pain and loss of blood. She was treated with opiates, astringents, ergot, &c., p. r. n.

By the 28th of April, the os uteri had dilated, and a polypus had descended, presenting a tumor in the vagina as large as a goose's egg. The hæmorrhage and pains were urgent, and the strength failing. So far as could be ascertained, the polypus sprang from a broad base within the cavity of the uterus, toward the left side and somewhat in front. As I could see no advantage in waiting longer, I applied a ligature by means of Gooch's double car[illegible] high within the uterine cavity as possible. The ligature

came off on the third day, with the included mass. The hæmorrhage and pain were entirely relieved, though a copious and very offensive discharge continued. Her appetite returned, and she regained color, flesh and strength, so that she was able to sit up.

This improvement continued till about the middle of June, when it was evident, by the return of the pain and flowing, that the polypus was again increasing, and re-exciting uterine action. On July 12th, in consultation with Dr. D. L. Adams, of New York city, as it was impossible to apply a ligature, it was determined to break the tumor down and remove it with forceps. It was very soft, so that only such portion as was actually included within the blades of the instrument could be removed at once; but after a tedious operation, the greater portion was removed or broken up, so that it would be discharged. The improvement in her general health was again very marked. Sept. 22d, another operation was deemed necessary, and quite satisfactorily performed. Nov. 26th, it was again repeated. After each of these operations the improvement was marked, and on the whole her general health had improved since April. But at each repetition of the operation, it was evident that an increased portion of the uterine cavity was implicated in the attachment, or by the adhesions of the tumor, and that the period was fast approaching when such merely palliative operations were becoming impracticable.

Feeling anxious to do something more effectual for the relief of the patient, and from the manner in which she had borne the repeated violence done to the interior of the uterus, and being convinced that no ill effects would follow the operation, I determined, when the next operation should become necessary, to apply some caustic to the origin of the polypus. I selected, as the easiest and safest application, the potassa c. calce, a roll of which I held in my forceps, and guarding it with the fingers of my other hand, applied it freely to the origin of the polypus, that having been removed as thoroughly as possible.

The operation was very painful, but there was no one ill effect which could be attributed to the application of the caustic within the uterine cavity. On the other hand, she recovered much more rapidly from the operation than from any previous one—the discharge was much less profuse, and much less offensive. This was February 11, 1857. February 20th, I applied a solution of nitrate of silver to the same part. She w[illegible] is able to walk about

the house, and out of doors, and to ride for the first time since March, 1856.

The tumor again returned, portions were discharged spontaneously, and other portions removed by instruments, but never so completely and satisfactorily as in the earlier operations. The character of the pains changed, and lost the severe expulsive character which they had earlier in the case.

Her strength gradually failed, exhausted by pain and the constant drain of the discharge, and she died in August, 1857. No autopsy was allowed. On examining the abdomen, a few days before her death, it was found very tender over the uterus, which was apparently irregularly enlarged toward each iliac fossa, and cordate in form.

Were I to repeat the application of caustic within the uterine cavity—and from my experience I should not hesitate to do so in a similar case—I should have the potassa c. calce cast in a globular form and fastened upon the end of an instrument, like Simpson's sound, bent at a curve adapted to the case.

# DISLOCATION OF BOTH THIGHS,

## ONE INTO THE FORAMEN OVALE, THE OTHER ON THE DORSUM OF THE ILIUM, WITH FRACTURE OF THE CERVIX FEMORIS.

BY J. MASON WARREN, M.D.

Communicated to the Boston Society for Medical Improvement, June 8th, 1857.

THE patient was brought into the Massachusetts General Hospital, having been crushed by the giving way of a wooden house, which he was engaged in moving, being struck upon the back as he was making the attempt to escape. The right leg first attracted attention. The thigh was fixed, slightly flexed on the body, standing off from it, the foot presenting nearly forward, the limb apparently elongated. A deep hollow was felt in the region of the trochanter, which had itself disappeared. The man being etherized, and the pulleys adjusted, a gradually increased force was applied to extend the limb. A sheet was placed under the upper part of it, and an assistant, standing on the table, directed to lift the limb. A slight rotation was now made to disengage the head of the bone, and it went into its place without any perceptible noise or action of the muscles.

The right limb being replaced, it was now perceived that the left limb was distorted, and presented all the signs of a dislocation upon the dorsum ilii. It was firmly fixed, shortened, the toes everted and resting upon the upper part of the other foot. The trochanter was prominent, and drawn up from its place to within about three inches of the crest of the ilium. On making an effort to move the limb, an indistinct, but very decided crepitus was perceived.

The pulleys being adjusted, and a fresh dose of ether administered,

the limb was slowly and with much difficulty drawn down, a slight rotatory motion being given to it when the head was on a level with the socket. It went into its place with a loud crack, which was heard by all the assistants. The limb now appeared, at first, to have regained its natural condition. As the effect of the ether upon the muscular system subsided, the limb gradually contracted, and the foot became slightly everted. An examination now being made, by rotating the limb, and placing the finger on the trochanter, it was perfectly evident to all present, that there was a comminuted fracture of the thigh-bone, passing through the trochanter. The two limbs were therefore confined—the right one by a weight attached to it, and a cradle placed over it. To the left, Desault's splint, as used at the Hospital, was applied. In addition to the above injuries, there was a fracture of two or three ribs on the left side.

The best explanation of the appearances offered by the left limb is this. The violent crushing force dislocated the femur, at the same time breaking the neck of the bone. The separation of the parts was not, however, sufficient to prevent them from being replaced, but the fracture was made complete, on the bone being returned to its socket.

The subsequent history of this case is not without interest. The patient, from the time of his admission, had complained of his chest, where, it may be remembered, one or two ribs were broken. Suddenly, one night, great difficulty of breathing came on, and, upon examining the chest, it was discovered that a congestion of the posterior part of both lungs had taken place, such as has before been observed at the Hospital, in patients who for a long period of time have been confined on the back, without movement, after serious injuries to the lower limbs. From this affection he very gradually recovered.

At the end of two months, he left the Hospital well. The motion of the right limb was natural. The left leg was a little shortened. The motions of the hip-joint were limited; on examination, the trochanter was found irregular at the point of fracture. As it had been thought possible that the head of the femur might have been left on the dorsum of the ilium when the complete fracture of the limb took place, search was made for it, but it could not be found there.

In this connection, Dr. Warr [illegible] ned the following case of

dislocation, and which was interesting in a practical point of view. A man was brought into the Hospital with a dislocation on the dorsum ilii, which was caused by a wagon passing over him, the limb being at a right angle with the body. Ether was given, the pulleys applied, and the dislocation reduced. On raising the limb slightly, to examine it, it at once slipped out of place, and was reduced again with some difficulty. This experiment was once or twice repeated, with the same result. Dr. Townsend, who saw the man, verified the fact. Slight, though not very marked crepitus attended the movements of the joint. From fear of displacement, and with the idea of a fracture of the edge of the upper and back part of the cotyloid cavity, the limb of the patient was kept rigidly confined in Desault's apparatus, and his desire to return home resisted. The precautions taken in this case were afterward shown to be not without reason. About three weeks after the accident, Dr. W. being out of town, the patient got out of bed, and while resting on the injured limb, attempted to turn around, thus giving a slight twist to the hip-joint. The bone immediately slipped from its socket. This accident afterward, in the course of the next week, recurred a number of times from simple motions made by the patient while in bed. It was then determined to put on a permanent splint, and allow it to remain on for several months. This had the desired effect, and the patient was seen by Dr. W. some months after leaving the Hospital; the joint was then slowly regaining its mobility.

# CROUP IN AN ADULT.

## TRACHEOTOMY—RECOVERY.

BY GEORGE H. GAY, M.D.,
ONE OF THE SURGEONS OF THE MASS. GENERAL HOSPITAL.

Read before the Boston Society for Medical Improvement, January 11th, 1858.

THE patient was under the care of Dr. MINOT, who gives the following account of the case previous to the operation.

Jane ——, æt. 20, an Irish domestic, rather tall and stout, had a cold, with hoarseness, for several weeks, and latterly almost complete aphonia. She was, however, about the house, Nov. 26th, 1857, though very unwell. On the 27th, she kept her room, having had dyspnœa during the night. Dr. M. saw her in the afternoon, between one and two o'clock. She was in bed, sitting up, and breathing with great difficulty. The air seemed to enter the trachea with difficulty, inspiration being accompanied with a loud, hissing sound. The muscles about the neck and face were strongly contracted. Her expression was that of suffering, but without much anxiety. The pulse was 120. The skin was cool. The countenance was free from lividity. The voice was almost extinct. A blister was applied to the front of the neck, an emetic was administered, a solution of nitrate of silver was applied to the throat and upper part of the larynx, and a solution of the carbonate of potassa was given internally. During the night she had much trouble in swallowing, with a pain shooting up to the ears. There was tenderness, also, under the angle of the jaw on the right side. The dyspnœa continued to increase during the night and on the following day, though the countenance was not livid until the time of the operation, when it was somewhat so, and covered with per-

spiration. By accident, she took about five grains of the nitrate of silver in solution.

I saw the patient, with Dr. M., on Saturday, Nov. 28th, at about 9, A.M. At that time the respiration was much labored, noisy, hoarse and accelerated. There was no interval of comparative ease or quiet. She was very restless, and struggling from want of breath. Swallowing anything, particularly liquids, increased the dyspnœa, and brought on a paroxysm of hoarse and ringing cough. The voice was guttural and scarcely audible. She was sitting up in the bed, resting almost entirely upon her hands. The head and neck were constantly moving, as if to get relief by a change of position. The front of the neck was swollen. The nostrils were much dilated. The eyes were prominent, with an expression of great distress. The pulse was frequent and small. The skin was hot, and more dry than it had been. The cheeks were somewhat livid. The veins of the neck and face were swollen and full. The noisy and hurried respiration masked any sound from the lungs and trachea. There was some flatness in the right lower back. The tongue was covered with a thick white coat. No membrane could be seen in the throat.

Before resorting to tracheotomy, it was proposed to try the effect of constant hot applications to the neck, and the breathing of steam from hot vinegar and water.

At 1 o'clock the symptoms were much more alarming. The voice was merely a faint whisper. The cheeks, lips and hands had become more purplish. The veins of the neck were full. The breathing was more difficult and hurried, and she was becoming every moment more and more asphyxiated. It was not deemed advisable to defer the operation any longer.

*Operation*—Nov. 28th, at 1½ o'clock, with the assistance of Drs. Lewis, Minot and Morland; without ether. The patient was lying on her back, with her shoulders raised by pillows, and her head and neck slightly drawn backward and downward, and held straight and steady by an assistant. The left hand then partially controlled the movements of the thyroid cartilage, and an incision was made in the median line, from the top of the crico-thyroid membrane downward two inches or more toward the sternum. The dissection was then carefully carried through the subcutaneous fat, about half an inch in thickness, the small veins of which were much distended and bled freely. The lips of the wound were then held separat-

ed by spatulæ, the blood was sponged away, and the fascia freely divided. The muscles covering the trachea were then drawn to each side, exposing the isthmus of the thyroid gland, with several distended veins. The two principal ones were separated, and the isthmus, which was narrow, was divided. The hæmorrhage was now pretty free, but it soon lessened.

It was noticed, while separating the muscles from the trachea, that there were some bubbles of air mixed with the blood. At first this was supposed to be owing to some divided vein. But this would not account for it. This point will be alluded to again. The hæmorrhage being momentarily checked, the point of the knife was passed into the trachea, and three or four rings were divided from below upward, but no bubbles of air were seen. The point of the finger was then passed between the divided rings, and a hard, firm substance was felt in the cavity of the trachea, like injection in a prepared artery, or like the interior of an aneurism. A director was then passed in between the inner wall of the trachea and this substance, but it did not remove it. It was then seized with a pair of dressing forceps, and a portion torn off. Air was immediately inspired, and the hæmorrhage instantly stopped. Some more of this membrane was then taken out, which was pretty firm, and looked as much like the coats of the aorta as anything else. There were two or three severe paroxysms of coughing, which expelled many membranous shreds and some tenacious mucus. The tube was then inserted; in a few minutes the breathing was much relieved, and the tube was fastened by tape passed round the neck.

Directions were given to sponge away whatever was forced out of the tube. In the course of the afternoon a considerable quantity of membrane, with some purulent-looking mucus, was expelled through the tube. At 6, P.M., the pulse was 130, the skin hot and dry. The respiration was much less labored, though hurried, being nearly fifty in a minute. The lividity of the face had gone. The cheeks were red. At times, there was considerable thirst. On taking any liquid, some of it entered the larynx, producing a paroxysm of coughing, and was then blown from the tube.

Sunday, Nov. 29th.—A large quantity of membrane and mucus was expelled last night. The tube was obstructed, taken out in the night, cleaned and replaced. Had some sleep. This morning,

there is considerable distress in breathing; during the paroxysm of coughing, membrane, with much stringy mucus, was expelled. The tube was again removed and replaced. The respiration was then more easy and quiet. The pulse was 130. The skin was slightly moist. The wound and the neck were swollen. The blistered surface about the wound was covered with a white exudation. There was a slight erysipelatous blush on the lower part of the neck and upper part of the chest. A cathartic of calomel and jalap was given, and a powder of calomel and Dover's powder was ordered every three hours. Beef-tea and arrow-root were taken as food. Toward night, the pulse was 120. Skin softer. Patient appeared more comfortable. The tube is removed, without much difficulty, three or four times a day. A portion of the liquids taken by the mouth was still forced out of the tube after a paroxysm of coughing.

Monday, Nov. 30th.—Coughed and raised much through the tube in the night, of tenacious, stringy mucus. At intervals, had some pretty quiet sleep. Was not so well during the latter part of the night, on account of the obstruction in the tube. Dr. M. was called up, cleaned and replaced the tube. This morning, is easier. The tube was again cleaned. The expectoration was more of a purulent character. The skin is still hot and dry. The pulse was 120. The tongue looks pretty well. The erysipelatous blush is fainter. 6, P.M.—Has had a quiet day. The respiration is less frequent. The pulse 112. Has not expelled any membrane. Has taken considerable nourishment. Is menstruating. Expelled much mucus by the tube, by the mouth and by the nose. The bowels are sufficiently free.

Tuesday, Dec. 1st.—Had a good night, and slept well. There was occasional coughing, with the expulsion of a muco-purulent secretion. There was no sign of any membrane. This morning, is decidedly better. The swelling and redness of the neck is much less. The blistered surface is tender, but improving. Feels generally more comfortable. The pulse is 113. The tongue is nearly natural. The skin is still dry. On taking out the tube and closing the wound with the finger, the air passed through the glottis with considerable ease. Can speak in a hoarse whisper while the tube is in place. Appetite sufficient. At noon, was comfortable. At 5, P.M., the breathing was very quiet. The pulse was 100. There was not much discharge from the wound. In coughing, some

of the secretion is raised by the mouth and some by the tube. Some dulness on percussion and bronchial respiration are heard in the right lower back.

2d.—Dr. Minot was called at 4 this A.M. to remove the canula, which had become obstructed. At 9, A.M., the pulse was about 100. The tongue had a moist brownish coat. There was more thirst. Is still menstruating. Sonorous râles are heard in both backs. Had two dejections from Epsom salts. The discharge from the trachea consists now of frothy mucus. Syrup of squill and wine of antimony were given.

3d.—Had much pain yesterday evening, in the right lower back, with a loud souffle at that point and along the side. There was also a souffle and coarse crackling in the left side of the back. The pulse was 112. To-day, there is much pain in the right side, particularly during inspiration. The respiration is feeble or inaudible, on account of the noise in the trachea. The pulse is 100. She slept tolerably well. The countenance is good. The tongue is moist. The expectoration is less and less purulent, containing, in fact, a large quantity of pure mucus. In the afternoon, raised some bloody sputa. The cough is hoarse.

4th.—Coughed and raised a good deal in the night, at times—mucus, muco-pus and blood. Was rather uneasy from the pain in the right side. Had a Burgundy pitch plaster to side, and took some calomel and Dover's powder. Afterward, slept somewhat, and the breathing was then quiet. This morning, the respiration is easy, not quick nor noisy. The skin is softer, and somewhat moist. The tongue is pretty clean. The pulse is 100. On removing the tube, the breathing is easier than before. Some discharge from the wound. One dejection. The expectoration is chiefly mucus, with some blood, and occasionally some tenacious mucus. The lower part of the right lung is still congested. The râles are not so strong as yesterday. In the evening, there was some dyspnœa, apparently as if from some obstruction in the trachea. The pulse was 100.

5th.—Had a good night. The tongue is nearly clean. The pulse is 100. Patient breathes partly through the canula, and when this is removed, and the opening is partly closed, she breathes comparatively well through the larynx; that is to say, without much difficulty, though hoarsely. Takes nourishment well. No souffle is heard in the chest. Toward night, had much pain in the

right side. The pulse was 96 to 100. There is some mercurial fœtor of the breath, on account of which the calomel was omitted from the Dover's powder. The voice is hoarse and not full.

6th.—Slept well till toward morning, when she coughed a great deal. The pulse is 104. Complains of great pain in the right side. On auscultation, there is heard beneath the right axilla a loud sound resembling a souffle, but not perfectly synchronous with respiration; that is, it begins after the commencement of the inspiration and ceases before the end of the expiration. Moreover, it is sometimes of longer duration than at others, seeming to depend, in this respect, upon the force of the respiration. Accompanying it are some crackling sounds. The percussion over the right back is decidedly dull compared with that of the left, and patient lies on her left side. The margin of the wound is covered with dry crusts. The expectoration is muco-purulent. A blister was applied to the right side, and one sixteenth of a grain of tartrate of antimony given every two hours.

7th.—Has been much troubled with the cough, but otherwise appears better. The cough is looser. Has much less pain in the side. Has taken more food than yesterday. The skin and tongue are moist. Complains of soreness in the mouth. There is some mercurial fœtor in the breath. The pulse is 100. Had one dejection yesterday. The expectoration is abundant, and of the same character as yesterday. Has taken the antimony as directed. There is nothing like salivation.

8th.—Was much troubled with coughing yesterday and this morning. Otherwise, remains about the same.

9th.—Coughed much all night, and seems much exhausted this morning. The pulse is 112. The skin is moist. The tongue is clean. There is a souffle in the lower part of the right back, with dulness on percussion. A double canula, with fenestra, was substituted for the one she had previously worn. The inner tube being removed, a cork was placed in the orifice of the outer one, through which, at the convex opening, the patient breathed easily. In about an hour and a half, she was found asleep, with accelerated respiration (48 per minute). The cork was removed to enable her to expectorate, and then replaced. It remained in place *eight* hours without much inconvenience. When removed, there was much coughing, followed by an expulsion of a large quantity of *purulent* mucus. At 10, P.M., she had been coughing much all the

evening, and was greatly exhausted. The pulse was 108. Took, during the day, iodide of potassium, for the condition of the mouth.

10th.—Souffle and dull percussion throughout the right back. The respiration seems healthy in the left back. The Dover's powder made her sick last evening. The tube was removed this morning. Through the day the respiration was mostly through the nose, and easy. The chief complaint is from the pain in coughing. Appetite is poor. Slept most of the day. There is still hoarseness in the voice, and cough.

11th.—There was less cough; in fact, but very little during the night, till this morning. The respiration is now tranquil, and free from noise. When she coughs, some air is forced out of the orifice in the trachea, which is contracting daily. The souffle is muffled, with coarse râles in the right back. The pulse is 100. Some little appetite.

12th.—More comfortable to-day. The cough is less.

13th.—She had an uncomfortable night, and more cough. There is still a souffle and dull percussion in the right back. The pulse is from 96 to 100. The bowels are free. Mouth is much better. A cough mixture, with naphtha, was prescribed.

14th.—Had a better night, with much less cough. To-day, feels generally better. The appetite is improving. Sits up a few hours.

16th.—Slept well, but had a severe paroxysm of coughing this morning. The tongue is nearly clean. The skin is rather warm. The pulse is from 108 to 112. (The patient was sitting up, and had just passed through a paroxysm of coughing.) The expression is improving. The voice is decidedly stronger. No air comes out of the wound, except during hard coughing. The percussion is very flat over the lower part of the right back, right front and side. In these regions, tubular respiration is heard, which is loudest and most harsh in the lower part of the back, and ceases at about the level of the angle of the scapula. It is less loud in the lateral and anterior regions. Above the level of the angle of the scapula, the respiration and percussion is quite natural, as they are throughout the left chest. No distinct ægophony is heard in the region of the tubular respiration, but some tremulousness of the voice approaching that sign. But on account of the state of the patient's voice, and the difficulty of speaking, no certain result could be ascertained. By measure, the left chest appears to be

slightly larger (one third of an inch) than the right, both below and above the mammæ. For the account of the preceding auscultatory phenomena, we are indebted to Dr. Minot.

17th.—The pulse is 96. The souffle in the right chest is considerably diminished, both before and behind. General condition and voice are much improved.

18th.—The pulse is as yesterday. The souffle as before, with ægophony.

21st.—Physical signs as before. The pulse is from 92 to 96.

23d.—A souffle in the lower part of the right back and side. Scarcely any distinct sound is heard below the spine of the scapula; above that level, the respiration is vesicular. The percussion is as before. Still complains of pain in the right side, with some tenderness. The pulse is 96. The tongue is nearly clean. The cough, on the whole, is less, but she had a severe paroxysm this morning.

In this case it will be observed that the patient had had a cold, with hoarseness, for several weeks, and latterly it had been attended with almost complete aphonia. She was about the house on Thursday, Nov. 26th, 1857. That night she was troubled with difficulty of breathing. The next day, Friday, not feeling so well, she kept her room. Between 1 and 2, P.M., Dr. Minot was sent for, and found her with evident symptoms of the croup, in the breathing and voice. The proper remedial measures were immediately resorted to, both internally and locally. That night the symptoms increased in severity, and on Saturday morning the disease was still advancing, with indications of commencing asphyxia. Still further treatment was persisted in for three or four hours, but the symptoms became so urgent and alarming that tracheotomy was performed. From what examination could be made, there was some congestion in the lower part of the right lung.

Judging from the rapid progress of the dangerous symptoms, and the exhausted condition of the patient, she could have survived but a few hours without the operation.

It is impossible to say how much membrane there was at the time of the operation. The space occupied by the three or four rings of the trachea that were divided, was lined with it, at that point partially detached; so much so, that the director, without much force, passed between it and the mucous surface of the trachea. Its brittleness prevented the removal of but a small quan-

tity. Portions of membrane continued to be expelled for *thirty-six hours*, after which the expectoration was somewhat purulent.

It may be asked, whether or not the patient could have lived twelve hours or more, without an operation, thus allowing her some chance of expelling at least a portion of the membrane. There is no hesitation in saying that at that period the powers of the system would have been too feeble to force it through the glottis, for the great obstruction to the passage of air is generally at that point. If the efforts of coughing had separated the membrane, the opening in the glottis would, in all probability, have been completely blocked up, causing a more instantaneous death.

The appearance of an erysipelatous blush below the wound, on the next morning, and the thick, white exudation on the blistered surface, made the prognosis look unfavorable. But these disappeared, and the patient was comparatively comfortable.

The following Tuesday, there was much suffering from pain in the right side, with symptoms of an attack of pleuro-pneumonia. These symptoms increased, so that the distress and restlessness became much greater. From day to day there was considerable fluctuation in the amount of pain, distress, difficulty in breathing and coughing.

There was no particular trouble in the larynx after the tube was removed. The pain in the side came back, and was attended with more marked auscultatory signs. From Dec. 23d, the cough has varied in frequency and intensity, and there was no decided and continued change for the better in it or in the auscultatory signs until within ten days. From that time an improvement has been noticed in these symptoms and her strength. Owing to the hard coughing, the opening in the neck was necessarily prevented from closing. It has now entirely healed. Her voice is still somewhat hoarse, and there is an occasional paroxysm of coughing.

Dr. Minot saw her three or four times every day, and was frequently called to her in the night. To his attentive exertions the patient's comfort and recovery are mainly attributable. With ordinary care, we do not believe that the patient would have lived.

This is the first case of membranous croup in an adult that I have ever seen. It is well known that cases of the kind are very rare. And it is still more rare for an adult to recover after the operation of tracheotomy for this disease, even when it is not complicated with a severe attack of pleurisy and lung fever.

# LARYNGEAL CROUP IN A BOY EIGHT YEARS OLD—TRACHEOTOMY—RECOVERY.

BY GEORGE H. GAY, M.D.,
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Read before the Boston Society for Medical Improvement, January 11th, 1858.

LEWIS F., æt. 8, Roxbury, was taken sick on Friday, Nov. 27, 1857, with the mumps on the left side of the face. On Saturday of the following week the right parotid gland began to swell, and at the same time his parents noticed that he was hoarse and had a cold, although they did not know of any exposure that might account for it. The cough, what little there was, was loose, and no particular attention was given to it. On Sunday he could not speak a loud word. His voice was a faint whisper. There was no change in the cough. The hoarseness continued, and on Tuesday night he was seized, for the first time, with great distress in his breathing, which was very noisy, crowing, and at times ringing. He was very restless, and made frequent efforts to catch more breath. The cough was still slight and loose. His physician was sent for, and squills and antimony were given. The medicine was almost immediately vomited, but nothing else. Afterward, there were occasional intervals of comparative ease, continuing for half an hour or more. On Wednesday he was up and dressed, and playing about the room; to all appearance much better, though the hoarseness still continued, and the cough remained about the same. Toward noon, there were some severe paroxysms of difficult and noisy breathing, and soreness in swallowing was complained of. At 4, P.M., the respiration was more hurried and labored. From this time there was an uninterrupted difficulty in breathing, and the cough began to be shrill and more dry. An emetic of ipecac was administered, a blister was applied to the upper part of the sternum, and an atmosphere of steam was kept constantly about him, from a pail of hot water by the bed-side. No relief was obtained from these means. Throughout the whole night there was great restlessness, and nothing that could be called sleep. Between

midnight and two o'clock there was a long, and very severe paroxysm of noisy and wheezing respiration, with a ringing, and, as the mother described it, squeaky cough. The swallowing of any liquid brought on and aggravated the paroxysm. He was much exhausted, and nothing seemed to do him any good. On Thursday morning the symptoms were much worse, the respiration being very frequent, the breathing very hoarse and crowing, and the cough shrill and dry. No change of posture in the bed seemed to relieve him, whether lying down or sitting up.

At 11, A.M., when I saw him in consultation with his attending physician, Dr. Bartlett, and Drs. Lewis and J. Mason Warren, he was reported to be worse than he was early in the morning. The least excitement brought on a paroxysm of labored breathing. The voice was hoarse, guttural and not very distinct. The respiration was hurried, difficult, very noisy and harsh. There had been no quiet respiration for hours. The veins of the neck were prominent and distended, particularly one on each side of the median line, just beneath the skin. The skin was hot, but not very dry. The pulse was small, 130. The countenance was languid, and indicated considerable suffering. By auscultation, no vesicular breathing could be detected, the noise from the larynx overpowering it, if it existed in any degree. By percussion, the resonance was seemingly greater than natural. As far as the lungs could be examined, it was concluded that probably they were not much affected, that they were full of air, which caused the great resonance, and that they were only partially emptied at any expiration.

The tongue was covered with a thick white coat. On looking into the throat, the tonsils were much inflamed, and had an erysipelatous or scarlet-fever redness; the epiglottis was also red, swollen and stiff. It did not seem to be movable. Upon the right tonsil there was a white patch, of the size of a three-cent piece, appearing like membrane. No membrane was seen anywhere else.

The whole trouble seemed to be limited to the larynx, and whatever it was, there was a rapidly increasing mechanical obstruction to the passage of air. Any further medical measures were not deemed applicable, and tracheotomy was uunanimously rged.

*Operation*—Dec. 10th, 1857, 11½, A.M., with ether. The incision in the skin was similar to that of the other operation, with the exception that it was continued down to a line on a level with the upper

part of the sternum. This finished, the two large median veins just beneath the skin were brought into view, and after some difficulty were separated. There was nothing peculiar in the rest of the operation, except some bubbles of air, as noticed in the other case. These bubbles were small, and were observed after or while separating the muscles covering the trachea. The isthmus of the thyroid gland was pushed and held upward. There was no trouble with the deep-seated veins. There was but little hæmorrhage, and no vessel was tied. The wound being sponged dry, three rings of the trachea were cut from below upward. The inside of the trachea was red, but no membrane was seen. Air was immediately inspired by the opening, and a quantity of frothy, tenacious mucus was expelled. The tube was then inserted, and in a few minutes the breathing was entirely relieved and changed. The pulse, from 130 just previous to the operation, fell to 120. A short time afterward, on applying the ear to the chest, distinct vesicular breathing could be heard. During the afternoon and evening there were occasional paroxysms of coughing, with expulsion of stringy mucus through the tube, and which was wiped away with a sponge. The breathing was much more quiet and slow.

Dec. 11th.—Passed a pretty good night. Did not have any very distressing spells of coughing. The swallowing of any liquids still brings on a paroxysm of dyspnœa and coughing, which is in all probability owing to some of the liquid escaping into the larynx, on account of the imperfect closure of the epiglottis. This morning, breathes with less noise, and entirely through the tube. The expectoration is frothy and mucous. He appears very comfortable. The skin is hot, but not dry. The pulse 112. Not much thirst. The act of swallowing not so painful. Drinking brings on immediate coughing, though no liquid is expelled through the tube. The tube, being somewhat clogged, was removed, and a double one inserted, each having an opening on its convex surface. The wound and neck are swollen and sore. The discharge from it and the blister is thick, white and firm, like membrane. One free dejection. Moves his lips, but cannot articulate. Chest sounds well. Throat looks better.

12th.—Had a very comfortable night. Slept an hour or two at a time. No severe paroxysm of coughing or dyspnœa occurred. The expectoration through the tube is more tenacious. The inner

tube is removed every three or four hours and cleansed in hot water, and then replaced, without the slightest inconvenience to the patient. The breathing is quiet, and wholly through the tube. The external opening of the tube was closed for a moment, but the air could not pass through the glottis. It seemed more closed than yesterday. As yet, there is no appearance of any membrane in what is expelled through the tube. By taking only a teaspoonful of liquid at a time, no irritation of the larynx is produced. Found him playing *solitaire*. Makes signs for some toast. Throat improving.

13th.—Occasionally during yesterday, the expectoration from the tube was observed to be somewhat purulent. Had a quiet and easy night. Some air passed through the glottis last evening, for the first time. This morning he looks very bright. On closing the external opening of the tube, air evidently passed through the glottis, producing a somewhat hoarse sound and a moist rattle. Can swallow with much less difficulty. The cough is less. The tongue is cleaner. Pulse 100. Some appetite. The breathing is very quiet. Sleeps on his side or back. The wound of the neck is tender on motion. Raises much more through the tube—mostly thick, tough mucus, occasionally mixed with pus. After a paroxysm of coughing, some blood was seen in the sputa from the mouth, but none from the tube.

14th.—Had a very comfortable day yesterday. Raised a great deal of firm, shreddy mucus by the mouth and tube. Slept several hours through the night. In the night, the skin was quite soft and moist. To-day everything still seems to go on favorably. For the first time, can speak, and is easily understood, although the voice is hoarse. On closing the tube externally, the breathing is more free than yesterday. The tongue continues to grow cleaner. The pulse is 96. The skin is nearly natural. Appetite is sufficient. Is anxious to get up. The wound is less swollen, and the lower half has now a healthy granulating look, while the upper half and the blistered surface are still covered with a thick, white exudation. The lungs sound well. Above the tube, there is much moist rattling. More is raised by the mouth than by the tube. The expectoration by the mouth brings up much firmer mucus than by the tube. The throat looks well. There is no pain in swallowing.

15th.—Slept quietly most of the night. When awake, he raised freely by the mouth and tube, pus, mucus and a firmer substance. No dejection for two days. At 4, this A.M., took two ounces of liquid extract of senna. At 9, A.M., was very comfortable. Pulse 96. Tongue much cleaner. Blistered surface clean, with a healthy red look. On removing the inner tube, some obstruction was felt along its upper convex surface, and when it came out, a piece of thick, firm membrane was found partly in and partly out of the convex opening. It was of a yellowish-white color, rather brittle, and looked exactly like one of the pieces removed from the other patient. It resembled a piece of the aorta. This undoubtedly came from above the opening in the trachea, and was sucked into the tube through the openings on its convex surface. It will be noticed that nearly all the expectoration by the mouth was of a firmer character than that from the tube.

16th.—Slept well. Raised a good deal in the night, both by the mouth and the tube, of a mixture of tenacious mucus, pus and patches of membrane. This morning, is comfortable. Is improving fast. Tongue is nearly clean. The appetite is sufficient. Two free dejections. The respiration is easy, quiet, and nearly natural. Sat up most of the day.

17th.—Slept during most of the night, but awoke occasionally in consequence of the collection in and above the tube. To-day, very well. Can be distinctly understood when speaking, without closing the tube. On closing it, can speak aloud, though the voice is somewhat hoarse. The throat looks natural. Still raises, by the mouth, some shreds of firm membrane.

18th.—Slept most of last night. Had a very long and severe paroxysm of coughing early this morning. The expectoration was free, consisting of some stringy mucus, much pus, and a few membranous shreds. Afterward, was very comfortable. To-day, looks bright, and has improved since yesterday. Has lost much flesh. Tongue clean. Appetite good. Pulse about natural. Bowels regular.

A cork was placed in the external opening of the tube, to ascertain the condition of the breathing by the larynx. At first, there was considerable hoarse coughing and raising of distinct, thin membrane. Afterward, was more quiet. Directions were given to let the cork remain if the breathing was easy. It was kept in from 10, A.M. till 4, P.M.

19th.—Slept very well last night, and had but little coughing. This morning, when seen, he was walking about the room, with the tube closed. The breathing was free and easy. Could speak loudly and distinctly. The parents report that more membrane has been expelled. Tongue, pulse and bowels well. Appetite good.

20th.—Very comfortable through yesterday, last night and this morning. Both tubes were removed to-day. The breathing was easy and quiet. Scarcely any hoarseness in the voice. Is up and dressed, playing about the room. Appetite sufficiently good.

21st.—There was no difference whatever, yesterday or last night, in the breathing, on account of the removal of the tubes. The coughing has been less. To-day, the wound of the throat looks well, and has contracted very much. The respiration is nearly natural. There is no cough to-day. Talks clearly and smoothly, without any hoarseness.

22d.—Doing well in every respect. No air has been observed to pass by the opening in the neck.

25th.—Improves daily.

27th.—Still improving.

January 11th, 1858.—The wound of the neck has cicatrized. In every respect the patient has continued to do well. There is, perhaps, a slight huskiness of the voice.

At the auscultation immediately preceding the operation, the different symptoms were examined with great care, and the only question raised was, whether it would be prudent to apply the nitrate of silver to the throat and larynx, and wait to see its effect, or perform tracheotomy at once. It seemed pretty clear that the lungs were not materially affected, and that the whole trouble was situated in the larynx. The presence of a small membranous-looking patch on the tonsil was, in connection with the other croupy symptoms, which were making rapid progress and increasing in severity, a strong presumption that there might be membrane already in the larynx. Furthermore, there was an evident and increasing impediment to the passage of air through the glottis, and judging from the red, stiff and almost erect condition of the epiglottis, it was a fair inference to suppose the glottis to be in a similar state. Whether the opening of the glottis was contracting from membranous deposit or from inflammatory swelling, the

result to the patient would soon be the same. It was also thought that in the necessary delay from the application of the caustic, the condition of the parts and the strength of the patient, in case no relief was afforded, might be so changed that an operation would hardly be advisable. It was therefore decided to resort to tracheotomy, as holding out, at that moment, the best chance of saving the child's life.

That the course pursued was judicious, and the only safe one, was amply manifested by the condition of the larynx on the second day after the operation. On closing the external opening of the tube, no air passed through the glottis; or, if any, it was in so small a quantity that the face immediately became livid, and violent struggles were made for breath by the patient. In all probability the child, without an operation, would not have lived through the night. It will be noticed, and it is a point of much value, that the relief after the operation was great and immediate, and that the breathing continued comparatively easy and quiet, while the disease was still going on above the tube. The disease was evidently limited to the glottis and just below it. These parts remained perfectly at rest, while the disease advanced and the membrane was separated and expelled. Below the tube everything was healthy enough, and sufficient air was furnished through the tube for the lungs to perform their necessary functions. It has been the general practice in cases of membranous croup, to perform tracheotomy only as the last resource. If the operation had been deferred even a few hours in the above case, there is every reason to believe that the patient would not have lived.

The number of cases of membranous croup, where the membrane has been expelled and recovery has followed without an operation, is vastly disproportionate to the number of deaths.

In this vicinity, death has been, so far as has been ascertained, the constant result after the operation of tracheotomy for membranous croup, mainly, in most instances, from the operation being too long deferred. If the disease has involved the bronchi to any extent, of course the operation has not that chance of giving permanent relief. The strongest objection to the employing of tracheotomy as a last resource, when the patient is almost moribund or asphyxiated, is the extremely fatal result, hastened, unquestionably, by the extent and locality of the membrane, the congestion

of the lungs, and the action upon the brain, and system generally, of the imperfectly oxygenated blood. There is always more or less danger when the membrane is detached and efforts are made to expel it, that the passage through the glottis may not be sufficient for its escape, particularly as the membrane is apt to remain the longest adherent at this point.

The difference in the result of an early or late operation for strangulated hernia is familiar to all. Time will show whether an earlier period of performing the operation of tracheotomy for membranous croup than has been customary, may not be followed by as successful results.

The operation of tracheotomy, though at all times an embarrassing one to the surgeon, of itself very rarely hastens death or causes unnecessary suffering to the patient, even in those severe cases where, from the extent and locality of the disease, death must inevitably follow. On the contrary, the relief to the respiration, the congested condition of the lungs and other distressing symptoms, is often very marked, and where death does follow, it follows more easily and quietly. A *post-mortem* examination has frequently revealed the fact of the membrane terminating about an inch below the glottis. In such a case, the operation would, we have every reason to believe, have saved the patient. Of course the chance is much less when the membrane extends downward in the trachea and bronchi, beyond where the opening has been made for the tube. And even then the obstruction to the respiration is less liable to occur, as the tube will give a certain amount of freedom to the breathing, more than would be obtained through the glottis, the opening of which is constantly contracting, unless the membrane below is detached and suddenly chokes up the trachea below the tube.

Dr. Buckingham has recently performed the operation on a boy, two years and eight months old, and a week afterward he was doing very well.

It was rather difficult and puzzling at the time, to account for the bubbles of air that are alluded to above as having been seen during both operations. It was referred to a divided vein, or perhaps a rupture of the membrane connecting the rings of the trachea, from severe coughing. If this last had been correct, there ought to have been some emphysema in the neck. A short time

erward, ile Dr. Cabot was removing a breast at the Hospital, same bubbles of air were noticed in different parts of the und. T explanation of Dr. Bigelow seemed perfectly satis-tory, he air became mixed with the blood in the different oveme the muscles and fascia, and escaped in the form of bubbles.

[Extracted from The American Journal of the Medical Sciences for April, 1858.]

# INFLUENCE OF THE PLACENTA

UPON THE

# DEVELOPMENT OF THE UTERUS DURING PREGNANCY.

BY

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Read before the Boston Society for Medical Improvement, December 28, 1857.

In the course of a somewhat extended consultation of obstetrical writers, undertaken while investigating the subject of placenta prævia, nothing became more evident than the insufficiency of any theory of the development of the uterus as at present propounded, to account for all the phenomena which manifest themselves in this unnatural form of pregnancy.

The theory of uterine development recognized by writers at the present day, is, that the uterus begins to enlarge at the fundus; that the body of this organ next takes part in the process, then the cervical portion, and finally the cervix itself. That this process of enlargement goes on in the fundus and body exclusively for 5, 6, or 7 months, or even longer, and that after this time the increase of its cavity is gained at the expense of the neck, the rest of the uterus remaining comparatively quiet. That in consequence of this process, the uterus at the end of gestation acquires a fusiform shape, the smallest end resting in the pelvic basin.

But while agreeing in the general plan of development, nothing can be more vague and contradictory than the opinions expressed as to the rate and mode in which this development is carried on.

The absence, also, of any proof whether the cases on record, by which the size and shape of the uterus at different periods of gestation have been determined, were all of them normal presentations, or whether a part of them were not presentations other than those of the head, renders the results obtained from them of doubtful value.

That the uterus enlarges as the fœtal mass increases in size, is a fact that

admits of no dispute; but that it expands in one part before another, in obedience to any organic law, as the consequence of the operation of a vital cause, may be doubted.

If it should be proved that, irrespective of the position of the placenta upon the uterine walls, the fundus always began to expand before any other portion of the uterus, and that, as the development proceeded gradually downward, the cervix was the last to lose its characteristic shape, until, at the close of gestation, the outline of the whole organ was constant and symmetrical, whatever may have been the presentation of the child, a strong and unanswerable argument might be made out in support of the present theory. But in this conclusion we are not sustained by facts. In normal presentations, at the period of its utmost development, the general outline of the uterus is pyriform, the base being above, and the apex resting in the cavity of the pelvis. When the breech presents, it becomes almost globular; and in transverse presentations the long diameter is at right angles to the axis of the pelvis; proving very conclusively that the shape of the uterus, at the termination of gestation, is not the result of development, but depends upon the position of the contained fœtus.

Neither is the uterus symmetrical at the close of pregnancy. According to Mr. Doherty,[1] if a line be drawn round the body of this organ at the insertion of the Fallopian tubes, which in the unimpregnated state are situated nearly in the median line, it will be found that $\frac{3}{5}$ of its circumference is behind them, and $\frac{2}{5}$ in front. Cazeau[2] also makes the same remark. The insertion of the tubes, also, from being nearly at the level of the fundus, is now found to be one-third of the way towards the os, showing that a much greater expansion has taken place in one direction than another. The gradual mounting of the uterus in the cavity of the abdomen proves nothing, for, supposing that the expansion should begin in any portion of its walls, the inability of that expansion to extend beyond a certain degree in any other direction than upward or downward, and the impossibility of its enlargement being accommodated in the pelvic cavity, would of necessity force the mass in an upward direction, and produce the same apparent effect as if the fundus alone was enlarging. The mere fact, therefore, that the uterus rises out of the cavity of the pelvis, as the gestation proceeds, is no proof that any particular portion of this organ is being first developed.

Great reliance has been placed on the proofs derived from the changes which the neck undergoes during the latter portion of pregnancy: but except in first pregnancies, even these are not to be depended on. In relation to this point, M. Jacquemier[3] remarks that "the period when the dilatation of the neck commences has not as yet been fixed with any precision, and seems to offer many individual differences. The dilatation and shortening of the

[1] Braith. Retros., July—Dec., 1840, art. 127.

[2] Traité theorique et pratique de l'Art des Accouchement, 5th ed., p. 94, note.

[3] *Manuel des Accouch.*, vol. i. p. 177.

neck are two phenomena intimately connected, which are observed simultaneously. But, although it has been very generally admitted that the dilatation and the shortening of the neck begin at the fifth or sixth month, it cannot be regarded as a term fixed by any exact observation." M. Cazeaux states that the neck preserves its whole length until the last fortnight, and that in that time only is it absorbed into the cavity of the uterus.[1] The absence, moreover, of all data which would determine the position of the placenta or the presentation of the child in each particular case recorded, renders the results obtained from them almost valueless.

The greatest diversity of opinion also exists in regard to the period at which the relative changes in the uterus begin. Mr. E. Murphy places the period during which the cervix expands, from the 7th until the 9th month.[2] Mr. Burns[3] states that the cervix begins to partake in the development of the uterus at the 5th month, and continues till the 9th. Mr. F. H. Ramsbotham[4] places it at the 6th; "when five months are perfected, or about that period." Mr. J. T. Inglely[5] says: "Before the fifth month, the development of the uterus is confined to its fundus and body; but after the fifth month, the distending power of the ovum is exerted upon the neck of that organ which it dilates circularly from above." Dr. John Ramsbotham[6] remarks that for six or seven months the uterus "has been more particularly developed in its fundus and body; and that about that period the cervix uteri becomes shorter and thinner." Dr. Robert Collins[7] places it in the last three months. Dr. Robert Lee[8] states that the shortening of the cervix takes place in the 7th month. Dr. Blundell[9] says that, "during the two or three months in the end of pregnancy, the cervix uteri gradually dilates itself, so as to form a part of the chamber tenanted by the fœtus." Dr. Churchill[10] remarks "that the increase in size of the womb commences at the fundus, and as this is developed, the body enlarges; last of all, and not before the fifth month, the cervix." Dr. C. D. Meigs[11] puts it at the 7th month. Moreau[12] states "that from the first to the third month the development is principally effected at the expense of the fundus; from the third to the sixth, by the increase in the body; in the last three months it continues at the expense of the neck. This order cannot be broken without a change in the duration of pregnancy."

According to Dr. Davis,[13] it is during the last three months. Dr. Conquest[14] says it begins at the fifth month. Dr. Maunsell[15] at the 6th or 7th. Jacquemier[16] places it at the 7th, but expresses no great confidence in these

[1] Sup. cit., p. 101.
[2] Mid., Lond. 1852, p. 335.
[3] Ed. by James, sect. 38.
[4] Obstet. Med., Am. ed., p. 340, order 4th, sect. 1—a.
[5] Prac. Treat. on Ut. Hem., p. 140.
[6] Pract. Observ., 2d ed., p. 291.
[7] Pract. Mid., Am. ed., p. 61.
[8] Lect. on Mid., p. 363.
[9] Lect., ed. by Castle, p. 444.
[10] Theory and Pract. of Mid., § 157.
[11] Treatise on Obstetrics, p. 433.
[12] Transl. by Betton, p. 40.
[13] Obstetric Medicine, p. 1038.
[14] Outlines of Med., 6th ed., p. 157.
[15] Dublin Prac. of Med., p. 167.
[16] Sup. cit., vol. i. p. 178.

dates. Velpeau[1] considers that the change has begun before the fifth month, but qualifies his statement by remarking that "frequent observation, and the most careful investigation, have singularly lessened the confidence I formerly had in them (referring to various assumed facts in regard to the changes in the cervix uteri). The changes to which the neck is subjected during gestation, vary almost as much as its anatomical characters in the unimpregnated state. What I have said on the subject should therefore be understood only in a general sense." M. Cazeaux[2] believes that, "during the first six months of gestation, the uterus is developed at the expense of the fibres in the superior part of the body, or fundus of the organ particularly; while in the last three months, the fibres appertaining to the lower third of the womb are developed in a rapid manner, and the cavity of the organ is enlarged in consequence of the distension and growth of this lower part; a proof of which is, that the body of the uterus, which was pyriform in the earlier months, is perfectly ovoidal in shape towards the close of pregnancy." Mr. Edward Rigby[3] states that in the fifth month the change is distinctly perceptible. From all this, we see how little reliance can be placed upon mere opinions, which allow a latitude of three months for the commencement of a process, which, according to all analogy, should, under equal circumstances, begin at a uniform period.

Nor are the proofs derived from the supposed rate of increase in the placenta any more satisfactory in their nature. M. Cazeaux[4] assumes that the placenta gains its size almost entirely within the first six months, or during the period while the fundus is enlarging, and hence derives an argument in favour of their mutual adaptation. In this, in so far as he assumes that the fundus is the proper location of the placenta, he is sustained by Jacquemier,[5] who also considers that it is there situated in accordance with a vital law; "thus it fixes itself there in obedience to a pre-existing organic attraction, for it is not to be supposed that all parts of its surface are alike fitted for the development of the placenta." Velpeau[6] states that "the placenta constantly augments in the same proportion as the surface of the womb with which it is in immediate contact." Mr. Carpenter[7] gives as his opinion, that after the third month the placenta "goes on increasing in accordance with the growth of the ovum."

In answer to the proposition of Cazeaux, it may be said that, according to the information already obtained, it seems to be proved that there is no particular location for the placenta in the uterus. Its diversity of situation is so great that it may be assumed, as a general truth, that any portion of the interior of the uterus which is out of the way of the changes which take place at the end of gestation, when the os dilates, and which also is not liable to compression from the child's head during labour, is proper and fit for the attach-

[1] Transl. by Meigs, 4th ed., p. 139.
[2] Sup. cit., p. 702.
[3] System of Mid., part i. chap. 2.
[4] Sup. cit., p. 702.
[5] Sup. cit., vol. i. p. 273.
[6] Sup. cit., p. 209.
[7] Prin. of Human Physiol., 5/ 1983.

ment of the placenta. As to its seat on the fundus, long held to be the natural position for its location, observation proves that it is situated there rarest of all. Indeed, in 600 cases reported by Nægele,[1] it was found more often over the os uteri than the fundus, there being 11 instances of the former and only 7 of the latter. In 100 cases reported by Mr. Doherty,[2] he found that it was situated on the anterior wall in 25; on the posterior wall in 54; to the left side in 10; to the right in 8; leaving only 3 cases for all the other positions in which it could be. "Of 34 women," says Velpeau,[3] "who died while pregnant, or soon after delivery, at the Hôpital de Perfectionnement, I found, upon examining the parts, that the centre of the placenta corresponded to the orifice of the tube in twenty cases; it was in front of it in three cases; behind it in two; below it in three; and in six cases only towards the fundus."

To compare the size of the placenta with that of the uterus, except in a post-mortem examination, which must be done in order to substantiate the theory of Velpeau, is of course impossible, and the difficulties which must always accompany attempts to measure these organs, are of such a nature and so great that but little reliance can be placed upon the results; and, moreover, the size of the uterus is not always dependent on the size of the child, for many small fœtuses are surrounded by an immense quantity of water, and *vice versa;* and why a larger placenta should be the result in one case and a smaller one in the other, is difficult to perceive, and contrary to analogy.

In regard to Mr. Carpenter's statement, facts prove directly the contrary. There is not the slightest agreement between the weight of the child and that of the placenta, which ought to follow if there was a parallel growth. The following weights, taken from the records of the Boston Lying-in Hospital, prove this conclusively:—

| Weight of child. | Placenta. | | Child. | Placenta. | |
|---|---|---|---|---|---|
| lb. 8½ | lb. 1 | 7 oz. | 7 | lb. 1 | |
| 8 | 1 | 6 | 8½ | 1 | 4 oz. |
| 8 | 1 | 8 | 6 | 1 | |
| Twins 11 | 2 | | 7½ | 1 | 6 |
| 6¼ | 1 | 4 | 9½ | 1 | 8 |
| 6½ | 1 | | 7¾ | 1 | |
| 8 | 1 | 4 | 8 | 1 | 12 |
| 8¼ | 2 | | 9 | 2 | |
| 7¾ | 1 | 4 | 7½ | 1 | |
| 7½ | 1 | 4 | 8¾ | 1 | 12 |
| 7½ | 1 | 8 | 7¾ | 1 | 8 |
| 7 | 1 | 15 | 8½ | 2 | 4 |
| 9 | 1 | 4 | 10½ | 1 | 4 |
| 9 | 1 | 4 | 8½ | 1 | 4 |
| 7 | 1 | | 8 | 1 | 8 |
| 9 | 1 | 4 | 7 | | |
| 8 | 1 | | 8 | | 12 |
| 6½ | 1 | | 10 | 1 | 4 |
| 9 | 1 | 4 | 10 | 1 | |
| 9 | 1 | 4 | 13½ | 1 | 12 |

[1] Braith. Retros., July—Dec. 1840, art. 127.

[2] Ibid.

[3] Sup. cit., p. 210.

But beyond the weakness of the evidence upon which the theory is founded, it cannot account for all the phenomena which occur in placenta prævia. Based upon the assumption that the development of the uterus is from above downwards, from the fundus to the cervix, and that the placenta acquires most of its growth in the first six months, it follows of necessity that the greater the surface of that organ attached to that portion of the uterus which takes on its alteration of structure in the last part of pregnancy, the greater will be the separation and consequent hemorrhage. M. Cazeaux, as before quoted, assumes that the placenta acquires the most of its growth in the first six months of pregnancy, or during the period when the fundus is undergoing the same process. "This double phenomenon," says he, "seems to me quite sufficient to account for the production of hemorrhage; for when the placenta is attached to the fundus, its growth is simultaneous with the enlargement of that portion of the uterine walls on which it is implanted, and there is evidently no loss of blood; but when the after-birth is inserted over the cervix uteri, or on some adjacent point, the contrary must necessarily occur, because the growth of the placenta is nearly completed, whilst a more considerable extension of the lower third of the womb has yet to take place. Of course, the placenta can no longer participate in this rapid development by conforming to the increase of the uterus, and by following the widening of the wall on which it is inserted; and hence it spreads out from the centre towards its circumference, the fissures between its cotyledons become larger, and its different lobes are thus widely separated; but the growth of the inferior wall of the uterus is so rapid in the latter months that this mechanical widening of the placenta, upon which M. Jacquemier has particularly insisted, is no longer sufficient to prevent the tension of the utero-placental vessels, or of the cellular tissue in which they ramify; and this tension being ultimately carried to an extreme, all of these cellulo-vascular adhesions give way and become ruptured, and thus give rise to the production of hemorrhage."[1]

M. Jacquemier proposes, instead of the single process of development, another cause acting in concert with it, and which he terms mechanical distension, caused by the fœtal mass, particularly when the head presents; and in noticing the dilemma into which the supporters of the existing theory must necessarily be placed when accounting for the discrepancy of the dates of the first occurrence of hemorrhage, holds the following language: "If the separation of the placenta when it is attached to the neck of the uterus is the result of dilatation, how does it happen, upon the supposition that the cervix begins to be changed gradually from top to bottom in the sixth month, that flooding does not occur regularly at this period? If, on the contrary, as appears to me in reality to be the case, the internal orifice remains entirely closed until about the middle of the ninth month, why is it that the hemorrhage manifests itself often before that period? It is that its dilatation is not

[1] Sup. cit., p. 702.

the only cause of the separation of the placenta. The rapidity of the development of the inferior segment of the body of the uterus, and the mechanical distension during the last months of pregnancy, which make it descend so deeply, in a short space of time, into the pelvic cavity, particularly when the head presents, constitute the ordinary cause of hemorrhage up to a period very near the end of gestation."[1] The difference, however, between his opinions and that of other authors is more apparent than real, for as to all the other points, which are in reality more essential, viz., the place where the development begins, the relative growth of the placenta with the fundus, and the direction of the developing process, he holds the same belief with them.

Exceptions to the operation of all general rules are to be expected, and it would be manifestly unfair to condemn the one already stated, on the single objection that they occur; but exceptions should be merely exceptions. They ought neither to be great in number, nor antagonistic in principle to the rule itself, both of which qualities apply to that under consideration. We refer to those cases in which, with complete presentation of the placenta, no hemorrhage takes place before the end of pregnancy. Of their existence Levret[2] was early aware. His language in relation to them is here quoted at length, both for the reason that it gives the clearest exposition of the application of the theory that can be found in any writer, and also from the fact that the theory is essentially his own; the principle upon which it is founded having been first enunciated by him. "A question naturally presents itself here, which it is interesting to clear up; it consists in knowing why some females who have the placenta attached to the proper neck of the uterus, go their full period, and why the majority of those who are in the like situation do not go so long. This variety of effect, which proceeds from the same cause, must necessarily be dependent upon the same particular circumstances which constitute a determining cause. I will explain myself, and say that, according as the placenta has been originally attached higher or lower in the true neck of the womb, the hemorrhage will come on sooner or later; moreover, when this vascular mass shall have taken root very near the os tincæ, the woman will approach nearer the natural term of her confinement than if it had attached itself at the top of the passage of the uterine neck, and in the same proportion between their two extremes; indeed, it is as well demonstrated by the mechanism of pregnancy as by practical experience in the obstetric art, that the neck of the womb does not begin to expand to aid in increasing the size of the cavity of this viscus, until the last months of pregnancy, and that it is by small degrees that the portions of the uterine neck continue in their turn to enlarge from top to bottom, from which it results that the neck cannot aid in this expansion without causing the placenta, which is not susceptible of the same extension, to become partially detached, whether at a point of its circumference, if it is more advanced on one side than the

[1] Sup. cit., vol. ii. p. 236.

[2] L'Art des Accouch., p. 373.

other, or at its centre, if that exactly corresponds to the middle of the top of the neck of the womb; it necessarily follows, then, that hemorrhage will ensue at a time more or less near, or more or less remote from the natural term of the pregnancy, just as the placenta happens to be attached nearer or further from the true neck of the womb." Now were the reason he adduces, viz., "that the neck cannot aid in this obliteration without causing the placenta, which is not susceptible of the same extension, to become partially detached," the true one, exceptions to a general rule of hemorrhage in the last months of pregnancy, ought to be of the rarest kind. The fact, however, as he himself admits, is not so. The researches of Mr. Doherty[1] upon this point, show that there are many cases which go the entire term without hemorrhage. He says: "I have been engaged in examining the records of cases of this description, and although, in many, the distinction is not sufficiently drawn between a partial and a full presentation, nor the period of the first occurrence of hemorrhage defined, to make them available for our present purpose, I have collected a sufficient number of which the details are accurately given, to prove, that where there is merely a bit of the placenta overhanging the os, the woman scarcely ever goes beyond the seventh or eighth month without an alarming discharge of blood; while, on the other hand, although with a full implantation, hemorrhage, in the greater number of instances, bursts forth at intervals during the latter months, it is not a very unusual circumstance to find such patients proceed without any sanguineous loss till their term is completed."

This he endeavours to explain by supposing that "when the placenta springs from the cervix, or, as in one patient, although originally commenced in one of the walls of the uterus, as indicated by the root of the cord, it enlarges to such a magnitude as to cover completely the neck also, its growth has been sufficiently concentrated or extensive to keep pace with the circular expansion then progressing in the inferior chamber of the womb; whereas, when the substance, being at first elsewhere affixed, does not exceed its usual proportions, but is merely developed so irregularly as to advance a portion of its margin over that part, its growth is expended in other directions, and it becomes unable to adjust itself to the daily increasing size of the region into which it has, as it were, strayed."[2] Mr. Edward Rigby also seems to have been aware of this difference in favour of complete presentations of the placenta, and in regard to it holds the following language:[3] "Our own observations have rather led to the conclusion, that where the placenta is but partially attached over the os uteri, the first attack of flooding is rarely delayed until the full term of pregnancy, but makes its appearance some weeks earlier." And in the report of a case in which the placenta was centrically placed, and yet there was no gush of blood until the full term of pregnancy had expired, asks:[4] "Are not those hemorrhages from placenta prævia which make their

[1] Braith. Retros., vol. xii. art. 175.
[2] Ibid.
[3] Sup. cit., part 5, chap. 12, Am. ed., p. 418.
[4] Braith. Retros., vol. xii. art. 175.

first appearance in the seventh and eighth months of pregnancy, generally connected with a partial attachment of the placenta to the os uteri; and on the other hand, when it is centrically detached, does not the patient usually go to the full term of gestation before any hemorrhage takes place?" His explanation of this is, that "the os uteri being only in part covered with placenta; that its other portion being free, is more capable of dilatation from slight causes than it would be were the placenta centrically attached." To the statements thus made by Levret, Mr. Doherty, and Mr. Edward Rigby, I am able to add the results of my own observations, extending over more than 800 cases of placenta prævia, in many of which the departure from the rule is so marked as to attract the most casual observer.

In view of these exceptional cases, the theory of M. Cazeaux is faulty in that it seems almost impossible to reconcile these cases with the general rule of hemorrhage, which ought to prevail if his reasoning were correct, without substituting them for the rule itself. And, indeed, he seems himself to place but little dependence on it, since in reference to these exceptional cases he adopts the theory of Moreau, which he states to be as follows: "M. Moreau[1] remarks that, in the cases cited, the infants were dead, and without doubt had been so many days. But, says he, when the fœtus dies in utero, there follow in the circulation of this organ those changes rendered necessary by the cessation of the fœtal circulation; the blood arrested in the vessels coagulates there; they become contracted, and oftentimes even obliterated; no more blood comes to the womb than is necessary for its nutrition, the stimulus which called there a great quantity no longer existing, and for this reason the dilatation of the os can proceed without much hemorrhage, although the vessels which unite its borders to the placenta may be ruptured. This appears to me to be the more rational opinion." But by adopting this he does not remedy the difficulty, for the children are not always dead, and therefore the condition of things upon which Moreau has based his explanation does not always exist, and the reasoning is good for nothing. The same objection applies to the proposition of M. Jacquemier. If we accept Levret's definition of the theory as the true one, it is necessary to suppose in those cases in which the flooding did not appear till just before the end of pregnancy, that the placenta must have been situated so low down on the cervical portion as not to have been reached by the changes which have been going on in the portions above; for although the true neck does not begin to be obliterated till the very last period of gestation—the last fortnight according to some authors—a portion of the lower part of the body has long ere this been developed to an extent sufficient to produce a separation. To suppose that all the cases which have progressed without hemorrhage till the end of pregnancy are of this description, would be to exceed the probabilities of the case, and, on the other hand, if we can suppose the placenta to be thus placed, it ought to be so

[1] Sup. cit., part 5, chap. 12, near the end.

small in superficies that its circumference would not reach to the space where those changes are going on—a supposition equally improbable.

Mr. Doherty[1] assumes that in complete placental presentations the growth of the placenta has been sufficiently concentrated or extensive to keep pace with the circular expansion going on in the latter months, while, when only a portion of it covers the os, its growth is expended in other directions, and hence is unable to adjust itself to the daily increasing size of the lower part of the uterus. That is to say, when the cervix is completely covered, the magnitude of the placenta, the concentration and extent of its growth, give it a property of keeping pace with the enlargement going on in the uterine walls, which is not possessed by the same organ, although it may be just as large, when situated elsewhere, and it may be in the immediate vicinity. His theory of exceptional development is also objectionable, for, if we grant that in a certain case the placenta has extended a portion of its circumference till, as the elder Rigby describes it, it is "somewhat like the lines of a very irregular island on the map, and one edge making almost a detached lobe,"[2] the probabilities that all the cases of partial presentation are of a like nature, or even a majority of them, are very small indeed; and moreover there is still left unaccounted for a large class of cases in which, while no portion of the placenta is over the os uteri, it is nevertheless in such immediate neighbourhood as to be exposed to all the changes to which it would have been subjected had it been attached to the os itself, and yet no hemorrhage ensues. According to Von Ritgen, the situation of the rent in the membranes with relation to the edge of the placenta was—

| | | |
|---|---|---|
| At the edge in . . . . | 22 | cases. |
| At the distance of one inch in | 8 | " |
| Between one and two inches . | 12 | " |
| Two inches . . . . | 7 | " |
| Between two and three . . | 16 | " |
| Three inches . . . . | 5 | " |
| Between three and four . . | 4 | " |
| Four inches . . . . | 6 | " |
| Between four and five . . | 8 | " |
| Five inches . . . . | 3 | " |
| Six inches . . . . | 6 | " |
| Eight inches . . . . | 3 | " |

So that, in the 100 cases, the placenta was within two inches of the os uteri in 49.

And again, the occurrence of hemorrhage before the fifth month, the period which authors assign as the earliest at which the changes in the cervix begin, ought to be of the rarest occurrence, if ever. This difficulty has no doubt induced some to ignore these cases entirely. M. Jacquemier almost discredits their existence; his language is, that "hemorrhages[3] which cannot be attributed to causes independent of the place of the insertion of the placenta, which

[1] Dublin Journ. Med. Sci., July, 1845, and Braithwaite's Retros., vol. xii. art. 175.
[2] *Essay* on Ut. Hem., p. 40.
[3] Sup. cit., vol. i. p. 237.

declare themselves towards the end of the fourth month, and during the fifth and sixth, are in reality very rare." But while it may be true that many of the reported cases of hemorrhage occurring in consequence of placenta prævia before the fifth month are of a doubtful nature, there is nevertheless a number sufficient to establish the fact, which are guaranteed as to their authenticity by the names of the observers. Prof. Simpson[1] reports a case of hemorrhage in the fifth month, in which, after severe flooding, the child and placenta were expelled together. Mr. Everitt, of Ellesmere,[2] one of three months, accompanied with profuse hemorrhage, in which the placenta was extracted. Rigby's forty-fifth case[3] is one of twenty weeks. In this the placenta was distinctly felt to be attached to the os uteri, and there was flooding with every pain. His seventy-fifth case is one in which hemorrhage commenced at the third month, and returned at different intervals till delivery was effected at the middle of the seventh. If, extending these limits, but still keeping within bounds, we take those cases in which hemorrhage manifests itself in the fifth or sixth month, the list, instead of being an exceptional one, will form a respectable portion of any collection of cases.

Having thus shown that exceptions to a general rule of hemorrhage in the last months of placenta prævia not only do occur, but are so numerous and so entirely at variance with the principle upon which that rule is founded as to be altogether inexplicable, according to any legitimate interpretation of its meaning, we come next to the question, what shall be substituted in its stead?

The principle upon which the existing theory of development in the uterus, as the consequence of pregnancy, is based, is, that this development proceeds in a uniform direction, from a fixed point, irrespective of the position of any of its contents, and at an equally independent rate. But we have shown not only by the discrepancy which exists in the opinion of authors, but by the facts themselves, that this assumption has no real foundation; the data upon which it was founded being capable of a general application only, without any special bearing upon the point at issue. What seems to be required, is, a theory which allows the development to commence at any portion of the uterine walls, and to go on, not according to arbitrary laws, but in connection with the increasing growth of the ovum, and in obedience to the ordinary physiological laws, which are constantly at work in the living body. Not that it is intended by this to ignore the vital part of the process—far from it; accepting as one of the essential elements of the problem, and as its very initial term, the vital act of impregnation, it is intended to apply to what follows; that is to say, to the phenomena which appear in the course of the growth and maturation of the ovum into the perfect child. As in the explosion of a train of gunpowder, the application of a spark may be considered a special act, while all that follows proceeds according to well known chemical laws

[1] Collected works, Am. ed., vol. i. p. 606, Case 1.

[2] Provincial Med. and Surg. Journ., Sept. 30, 1846, and Braith. Retros., vol. xiv. art. 175.

[3] Essay on Ut. Hem.

which govern matter—just so in pregnancy, the act of impregnation is a vital act, but the development and growth of the ovum are in obedience to the same physiological laws which are ordinarily in operation in the organization of living beings.

The substitute which is offered in place of the existing theory, may be stated in the following terms:—

*The attachment of the placenta to any portion of the uterus causes a development at that place, which proceeds pari passu, till, the limits of growth in the placenta having been reached, the enlargement is continued and kept up by the pressure constantly exerted on the uterine walls by the growing contents, till the time of parturition.* That is to say, at whatever point the radicles of the placenta first attach themselves after the issue of the ovum from the Fallopian tubes, at that point the development of the uterus commences, and from that point it spreads as from a common centre, and takes shape according to the position of the contained fœtus.

It is believed that the above statement is in entire accordance with the inferences which may be legitimately drawn from known data, and also in accordance with physiological laws. It is also believed that the exceptional cases already alluded to, can be clearly explained, and by a very simple mechanism.

That the attachment of the placenta on the uterine walls should produce a development at that spot, needs no elaborate proof. If we admit that the same effects follow the same causes in pregnancy as in other processes going on in the human organization, it would follow that the attachment of the placental radicles would, in the first place, produce a determination of blood to that spot in a greater quantity than previously existed there, and following this, and as a consequence of it, a development. That the supply of blood at the place where the placenta is attached, is greater than at any other point, has been established beyond a doubt, and granting this, the rest follows as a matter of course. But in connection with the development which has been going on in the region of the placenta, the other portions of the uterine walls have become more or less distended, to accommodate the constantly growing fœtus, so that if we add together the effect of the two causes, we should expect, in natural presentations, to find the uterus not very irregular, but approximating to a globular shape, which, according to M. Jacquemier, it has, up to the time of the development of the cervix.

The idea that the ovum can exert an influence sufficiently powerful to gradually distend the uterine walls, is one which has been advocated by some writers, and denied by others. Mr. Ingleby, quoted before, distinctly recognizes it; so does M. Jacquemier;[1] and it was a favourite notion of the ancients. M. Cazeaux,[2] in opposing it, remarks that "the expansive force of the ovum

[1] Sup. cit., p. 237. [2] Sup. cit., p. 91.

is powerless to overcome their resistance. * * * In a word, the growth of the ovum is the physiological cause, but not the mechanical agent of the development of the uterine walls." Velpeau[1] states that the "dilating force, altogether foreign to the product of conception, exists in the gestative organ itself. A circumstance that beyond question proves this to be the case, is that, in preternatural pregnancies, as remarked by Levret, Bertrand, Meckel, and Chaussier, and as I have also myself remarked in five instances, the uterine cavity, though empty, dilates as it does in ordinary gestation." But in answer to Velpeaux, and Cazeaux also, if the uterus expands in obedience to a physiological cause, why do we not always find it developed to the size it ordinarily attains, at the period noticed, in any particular case when the ovum is not within its cavity?—and even were this proved to be so, the fact that the ovum, in growing, has the power to overcome the resistance of the walls of the tube, in tubal pregnancies, shows that a distending force does exist in it—and if so, why should it not act in the same way on the walls of the uterus as on the walls of the tube? And still further, facts derived from observing the effects of intra-uterine tumours in enlarging its cavity, also prove that the resistance of the uterine walls is either not so great as is assumed, or that the force brought to bear on them during the process of growth in organized bodies contained within its cavity is sufficient to overcome this resistance, whatever it may be; and if by one body, thus constituted, then also by all. We are therefore justified in the conclusion that the uterine walls will expand under the constant pressure exerted upon them by the growing ovum.

The exceptional cases to which we have alluded as being inexplicable by any legitimate application of the present theory, owe their peculiar characteristics to the attachment of the placenta in a greater or less degree upon the cervix uteri. According to theory, the more complete the placental presentation, the earlier and more profuse ought to be the hemorrhage. According to fact, it is in many instances directly the reverse. Now, if we suppose the development to commence at the place where the placenta attaches itself, at the lowest part of the cervical portion, for instance, and keep pace with the growth of this organ, the difficulty disappears at once. For, by the time that the placenta having passed the period of its most rapid growth, the fœtal mass has already begun to exert its effect upon the uterine walls to enlarge them, the added strength which the thick, firm disk of the placenta gives to the cervical portion to resist this distension, is enough to prevent its being felt in that direction. And moreover, the general shape of the uterus being finally determined by the position of the child irrespective of the placental attachment, its form at the end of gestation would be the same, other things being equal, and would be scarcely modified by this complication. It applies also to partial presentations of the placenta of every degree, from that in which the os is almost entirely covered, to that in which the edge only of the pla-

[1] Sup. cit., p. 144.

centa is at its margin. For, just in proportion to the amount of the neck of the uterus covered by the placenta, is it protected from the distending process to which it is exposed during the later periods of pregnancy, and in just such proportion will the hemorrhage appear late or early, which is in accordance with observed facts.

Those cases also where the placenta is on the cervix, in the immediate vicinity of the os, but at the same time not overlapping it, which Von Ritgen proves to be of frequent occurrence, and which, according to every interpretation of the existing theory, ought to manifest a hemorrhagic tendency, but do not, are perfectly accounted for by the same reasoning. For, if it be objected that the distending process being exerted upon the cervical portions, it would at the same time act upon the os uteri, to open it; it may be answered that the same property which enables the os to keep closed during the changes which take place in the cervical portion in normal gestation, would preserve it entire in this. In short, it is believed that by adopting the theory thus set forth, all the phenomena which appear in the course of pregnancy when placenta prævia exists, and which depend for their cause upon the changes going on in the uterine walls, at the point of the placental attachment, may be clearly explained and accounted for by a much simpler mechanism than by the one already accepted and recognized. And while it does not militate in principle with acknowledged physiological laws, it so applies them as to leave fewer exceptional cases, and those cases not different in character from what are constantly occurring in normal pregnancies.

# SPINAL CARIES, OR ANGULAR CURVATURE.

BY BUCKMINSTER BROWN, M.D.

Read before the Boston Society for Medical Improvement, March 8th, 1858.

THE amount of relief which may be obtained from a combination of mechanical with medical treatment in aggravated cases of scrofulous diseases of the spine, with or without angular curvature, is often greater than, *a priori*, we should have deemed possible. The following cases are extracted from my note book, as among the most strongly marked and unpromising examples of this affection.

The first to which I would refer is that of a boy, 11 years of age, who came under treatment in February, 1847, and is thus described. "This patient has severe angular curvature in the lumbar region, by which he is much bent forward. In walking, he is obliged to put his hands upon his knees for support. His legs are exceedingly feeble. He is of a scrofulous constitution; light hair, light eyes, fair complexion. Grandmother died of phthisis. The disease of the spine was first noticed two years since. It cannot be traced to any injury. Two months since, had an attack of fever, accompanied by costiveness, and by almost complete loss of power in his legs. At this time had pain in urinating. There is fluctuation in right lumbar region, three inches from spine." The treatment consisted in the application of supports for the spine, combining their use with constitutional treatment—iron, iodine, quinine, nourishing diet, friction, &c. The supports employed in this and similar cases, are such as I have found, upon the whole, liable to the fewest objections, and the best calculated to fulfil the most important indications in this disease. They are so constructed that there shall be no pressure upon the chest. The ribs are left without the least impediment to respiration, and the shoulders drawn backward, to enlarge the diameter of the thorax. By the same means, a slight degree of elastic pressure is made upon the projecting vertebræ, while the body is straightened, so as to prevent, as far as possible, the diseased and carious surfaces of bone from pressing against one another, and to relieve them of the

superincumbent weight of the head and shoulders. Otherwise, of course, this weight upon the spongy and crumbling bone is constantly tending to increase the disease. Gentle exercise in the open air was permitted.

The memorandum for March 30th states "that the supports fit well, and the result is most satisfactory. The boy walks with his back comparatively straight, his head erect, and his whole appearance so altered that he would scarcely be recognized by one who had only seen him in his former bent position. His mother speaks of sending him to school. His general health is much improved." The record, six months later, states that "the boy is doing well, and is constantly at play in the streets with the other boys." In this case, as appears by the report, the protuberance was at once materially lessened by the mechanical support; he walked comparatively straight, and at the last date it seemed probable that anchylosis was taking place, by which return of the curvature would be prevented. Soon after this period I lost sight of the patient.

Another case was from St. Johnsbury, Vt., treated in 1852. "Child, five years old. Has angular curve in dorsal region, implicating five vertebræ—from the fifth to the eleventh. The spinous processes of the two latter are in such close contact as to be liable to be mistaken for a single process. The shoulders are much raised, probably caused in part by the habit of relieving the back of the weight of the head and shoulders by throwing it upon the arms, resting either upon the thighs, upon a table, or arms of a chair, &c. The respiration, most of the time, especially during sleep, or when the mind is occupied, is noisy, amounting almost to a grunt. It is also, at intervals, apparently painful, particularly when attempting to take a long breath. He cannot draw a full inspiration. In October, 1850, he fell from a chair, and came upon the floor in a sitting position. His mother thinks that he began to breathe badly from that time. The angular projection was first observed last winter" (1852).

The treatment was similar to that pursued in the case just cited. Supports adapted to the spine, rest a portion of the time in the recumbent position, friction with brandy and salt, and constitutional remedies. The apparatus supported the patient in an upright posture; the respiration became normal, and, by perseverance in the course prescribed, all the unfavorable symptoms gradually disappeared. This patier[illegible] to Philadelphia. I received a visit, however, from hi[illegible] two years after treatment, when

he was in perfect health, with the exception of a slight ophthalmia. There were still some remains of the angular protuberance, but it had much diminished.

A number of other cases could be cited, if it were deemed expedient, in which the result of the treatment here recommended was equally successful; in some of which, complete paralysis of the lower limbs had existed for several months.

In caries of the vertebræ, the true principle, bearing in mind the state of the bones, is undoubtedly to treat the disease as a fracture, so far as this is possible consistent with the health of the patient.

In the first place, the spine should be kept fixed, free from motion at the seat of disease. Second, the weight of the upper part of the body should be removed from the carious bones, and these should not be allowed to come in close contact, otherwise absorption will be promoted. In this respect the treatment, of course, differs from that pursued where there is a simple solution of continuity in a healthy bone. While the anterior part of the bodies of the diseased vertebræ is thus relieved, gentle pressure may be made against the projecting spinous processes by means of a pad and spring. That instrument is the most appropriate which is modelled upon the above general principles, and which will best fulfil the indications which result from them. The one here used is a modification of that described by Mr. John Shaw, of London. It consists of a similar pelvic girdle, which, however, is fitted and curved above the iliac bones, so as to grasp them superiorly as well as laterally, somewhat like a hand placed upon them, and of similar steel uprights, with crutches. This furnishes the basis, consisting of a firm foundation on the pelvis, with side splints for support, and to prevent lateral motion. These last are improved by being rounded over the lower ribs so as to produce no restraint upon their action. If we add to this a back splint in the shape of a steel spring, with a round concave pad to receive the projecting processes, to steady and support the spine, and to produce slight continued pressure upon the circumference of the protrusion, we have, perhaps, as perfect a fracture box as the circumstances will admit. The pad should be so made as to give immediate local support and fixedness to the diseased bones, and from it straps should extend over the shoulders, to draw them backward and expand the chest. This is still further accomplished by having the anterior horn of the crutch lengthened upward to embrace the clavicles, connecting the two sides by an elastic strap across the back.

This class of patients are debilitated and cachectic, and the disease tends to diminish the capacity of the thorax and abdomen from above downward, and to embarrass the contained organs. It is certainly consonant with sound theory, and experience has proved the importance of the principle in practice, that whatever mechanical means are employed, they should be such as will produce no further restriction of the respiratory function, no impediment to the free action of the ribs. Having combined the above treatment with passive exercise in the open air, and with such general remedies as seem appropriate, nature must be left to do the rest, and the result depends upon the fidelity with which our directions are complied with, and upon the original constitutional vigor of the patient. The attempt to portray, by casts or drawings, the different stages of a complaint affecting a part naturally so flexible as the spine, is very unsatisfactory. They depend much upon the position in which the patient is placed at the moment, or upon muscular atrophy or development at different periods; and if relied upon, they will tend to mislead both the physician and the patient, as well as others. It has, therefore, seemed best not to depend upon them in the description of a case.

*Posterior* curvature of the spine, where the bodies of several vertebræ have been especially affected by rachitic softening, and being compressed by the weight of the upper part of the body, a corresponding projection of the spinous processes has resulted, may often be mistaken for the more fearful disease, caries. In such instances complete cures may be effected, with no remains of the deformity, sometimes by very simple mechanical means, such as a figure-of-eight band round the shoulders, or other more complicated shoulder braces.

Sir Benjamin Brodie, in speaking of this affection, says: "Nevertheless, I am satisfied that these different kinds of curvature, arising from different causes, have frequently been confounded with each other; and that some of the cases which have been published as examples of caries of the spine, and in which it may, at first, be a matter of surprise that so complete and speedy a cure should have been effected, have in reality been cases of an entirely different malady.* Dr. W. J. Little, of London, whose experience in cases of this description is perhaps unequalled, likewise states that "rachitic posterior curvature may become angular in its progress."†

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* *Brodie on the Diseases of the Joints*, p. 254.

† *Little on Deformities of the Human Fram*

In true caries, however, a very different method of treatment is required, and the relief which is afforded in a majority of instances by following a course consistent with our knowledge of the pathology of the disease, sometimes resulting in a complete recovery, with more or less amelioration of the deformity, is a sufficient encouragement for its adoption in similar cases. So true is this, that whereas, some years since, I felt unpleasantly to see a case of this description, believing that art could accomplish but little for such a formidable malady, now, on the contrary, there is a satisfaction in undertaking the treatment, for, if a complete cure is frequently impossible, there is yet a strong probability that much suffering may be relieved and comfort attained.

As the diagnosis of spinal caries at an early period is confessedly very difficult, it is important to describe a symptom which will enable us to detect its existence, at a stage prior to that where its disastrous results have become decidedly manifest, and which I have never seen noticed or referred to by any writer upon the subject.

Frequently, angular curvature is preceded by *incurvation* of the spine, usually in the dorsal region. The shoulders are thrown back, an exaggeration, in fact, of what is generally considered a characteristic of a fine figure. The child walks with his head and shoulders posterior to the median line. This is the reverse of what takes place later in the disease.

It seems to me probable that the condition here referred to, may in part arise from a swelling of the bodies of certain vertebræ, particularly their anterior portion, this being the part usually found most extensively affected by caries, together with consecutive tumefaction of the intervertebral substance. We know that swelling of bone, and of the soft parts in its neighborhood, precedes carious disease in other parts of the frame. From analogy we should expect that the pathology of spinal affections would correspond with that which exists elsewhere. At the period, however, when we have an opportunity to examine the morbid appearances, they are often such as would lead to the conclusion that ulceration and softening of bone and cartilage are not always preceded by the usual characteristics of inflammatory action.

The description, nevertheless, which is given by Mr. Paget of tuberculous disease, as it makes its first inroads upon the osseous structures, tends to sustain the views I have here advanced of the early *pathology of spinal* caries, as connected with its primary cha-

racteristic symptom. He says: "The abundant deposit of tubercle and the fulness of the vessels in the inflamed and softening bone make the swelling in this form (the tuberculous) more considerable than in the preceding; yet it is rarely, if ever, great. * * * The changes produced by circumscribed tuberculous deposit in bone are comparatively seldom seen, for the disease is of slow progress, and rarely leads to death or amputation before the more diffuse ulceration has supervened and destroyed its characteristic features. The diffuse disease is, therefore, that which has been most studied and which has supplied most of the examples of scrofulous caries—'Pott's disease of spine,' 'Pædarthrocace.' It is this which is chiefly attended with ulceration, or perhaps tuberculous deposits in the neighborhood of diseased bones. * * * Inflammation indicated by all its signs is a common precedent and attendant of tubercular deposit."*

An additional explanation has been proposed by Dr. J. B. S. Jackson, which may partially account for the symptom, viz., that the pain occasioned by any forward pressure on the diseased bones causes the child instinctively to seek relief by throwing the head and shoulders backward.

It is not improbable that this primary incurvation is very constantly present as the first indication of scrofulous spinal disease, but does not, in most instances, attract attention, or is regarded by the parents as a peculiar beauty in the form of their child, who is otherwise feeble and of a tuberculous diathesis.

It is evident that marked benefit must arise from the general recognition of this premonitory sign. The measures, hygienic and special, which the judicious physician will be led to adopt while the disease is yet in its incipient stage, we have a right to anticipate, may in many instances check the advance of the specific inflammation, and tend to remove the effects of that which has previously existed.

As the disease progresses, loss of substance takes place, the bone becomes converted into a spongy, brittle mass, and yields in the opposite direction. This formation of angular curvature sometimes occurs suddenly; there is an immediate breaking down anteriorly of bone, the normal texture of which has been gradually destroyed.

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* Surgical Pathology and 683.

# CASES OF TALIPES, OR CLUB-FOOT.

BY BUCKMINSTER BROWN, M. D.

Read before the Boston Society for Medical Improvement, Dec. 28th, 1857.

SOME time since, the original plaster casts of a case of talipes varus, in its severest grade, of which one of these on the table is a copy, were shown to this Society, and at the same time the young man, whose feet at a former period of his life they represented, was present for examination.

At the suggestion of Dr. J. B. S. Jackson, new models have been taken, to be placed in the Cabinet. The case was brought forward at that time, not because the success which had attended the treatment was unusual, but simply as an instance in which had been performed one of the earliest operations for talipes in the United States, and the only one where an opportunity had offered for tracing the history of what had been an aggravated case of varus, after the lapse of such a number of years.

The case excited considerable interest in the Society, and was regarded by many as a remarkable example of a complete cure of club-feet. This, however, was not the light in which it was viewed by Dr. Brown, Sen., who operated in the case, or by myself. We considered it of great interest as presenting an instance, some eleven or twelve years after restoration, in which the strength of re-united or new tendon had been rigorously tested, and where the perfection and permanence of the cure was strikingly exemplified. It was originally double congenital varus in its worst degree. The smallest of the casts upon the table, marked No. 1, is an accurate model of both feet previous to treatment. They were precisely alike. (See figure 1.) Locomotion was effected on the anterior extremity of the os calcis and the proper superior surface of the os cuboides, or, in other words, upon the top of the foot. Upon examining the cast there will also be remarked as one of the most *striking peculiarities* the longitudinal doubling, or com-

plete folding inward of the soles, forming a deep groove, by which the great and little toes are brought almost in contact; and likewise will be observed the prominence of the round head of the astragalus upon the dorsum of each foot. The large cast, No. 2, is the same foot taken twelve years after. (See figure 2.) The subject was examined by the members of the Society at that time, and the faithfulness of the artists' representation* can be attested by all who were then present. The restoration was as complete as when he was first lost sight of by the surgeon. The feet were perfect, both in form and in freedom of action. They had become fully developed in bone and muscle, and somewhat exceeded in size an average foot. The patient had passed the intervening years partly at sea, performing duty as a sailor before the mast; and whether on land or sea, he stated that he had never experienced any inconvenience from his feet, and in appearance there certainly was no trace of the former distortion. He has more recently become mate of a ship.

Figure 2.

Figure 1.

Since these casts were taken (1854), old cases of cured feet have reported themselves more frequently. Among others, I would refer to a young man who had been treated when a child for single varus, but who came to Boston in 1841 with his difficulty still unrelieved. In this case the tendo-Achillis was divided twice; the tibialis anticus, the tibialis posticus and the flexor longus pollicis each, once. The foot was completely cured. He has recently visited Boston, thirteen years having elapsed since his former visit. The foot which had been operated upon could not be distinguished from the one which had been always perfect. All

* Messrs. Chicci & C[illegible] rtists employed.

the natural movements of the foot—flexion and extension, abduction and adduction—were freely and actively performed. He had finished his education as an engineer, and had been engaged in his profession for a year or more. During the last eight months of the year 1856, he walked ten hundred and ninety miles, carrying his apparatus and wheeling his odometer. In a letter recently received from him, he says: "In respect to my foot, I can walk twenty-five miles a day, and while at work I would travel from twelve to twenty miles each day."

The cast marked No. 3 (see figure 3) is the model of the left foot of a lad 13 years of age, who was under treatment some years since. A more formidable case of distortion can hardly be imagined. If it were not identified by the toes, we could scarcely recognize it as the representation of a human foot. The metatarsus was doubled and twisted upon the tarsus in a most remarkable manner, forming, at the point of union, a sharp prominent ridge upon the top and side of the foot. The astragalus was luxated upward and outward, and very much diminished in size. The atrophy of this bone produced one of the greatest difficulties with which we had to contend in the treatment. In the process of cure, as the foot advanced toward its normal position at a right angle with the leg, it was almost impossible to retain the astragalus in its proper situation. It constantly slipped forward, tending to completely defeat the successful issue of the case. The toes were flattened backward to such an extent as to be partially in contact with the dorsum of the foot, the little toe being pressed back against the top of the metatarsal bone of the fourth toe. There was, in addition, a contraction of the left leg at an obtuse angle with the thigh.

The cast next to this, marked 4 (figure 4), is the same foot after treatment. It will be observed that they are moulded with great accuracy, the one last taken exhibiting the wrinkles in the skin where it had formerly been stretched over the projecting astragalus and tarso-metatarsal prominences. It will also be seen that this does not represent a foot which is in all respects perfectly formed. When compared with its previous state, however, the improvement may be considered as being at least equal to the anticipations of the most sanguine.

It may be stated that the pencil sketches of the casts from

which the annexed engravings were copied, were drawn with great exactness, and for truth of detail and finished execution can scarcely be excelled.

Figure 3.

Figure 4.

In the course of the treatment there were four sections of the tendo-Achillis. The union of this tendon advanced more rapidly than the foot could be proportionably straightened, and only a limited increased length of tendon could be acquired before firm union took place, presenting, after a short time, an unyielding obstacle to further progress. Re-division, therefore, became requisite to render continued extension possible.

Experiments upon animals, combined with previous experience, should be our guide in difficult and extraordinary cases. The former prove that divided tendon is re-united in about three weeks by a firm fibrous tissue, presenting considerable force of resistance, and that in five or six weeks it is perfectly continuous and inelastic. Still later, it becomes more solid than the original tendon.

The other parts divided in this case were the tibialis anticus, the adductor pollicis, the latter twice, the flexor longus pollicis, and some fasciculi of the plantar fascia; also the semitendinosus, the semimembranosus and the biceps.

The treatment resulted in a complete restoration of the leg, and the foot is now, I have been informed, in a more perfect condition than is represented by the cast or the engraving.

The third pair of casts (figures 5 and 6) represent a case of equino-varus in which the patient walked upon the extremities of the metatarsal bones. The toes were pressed back, the metatarsus flexed and rotated upon the tarsus; the astragalus, as may be distinctly seen upon the model, was thrown out and projected upon the dorsum pedis, with the bones of the leg resting upon its pos-

terior portion and upon the os calcis. The heel was elevated three and a half inches. The patient was a boy 11 years of age. The foot was discovered to be misshaped as soon as he began to walk, and was probably congenital equinus, converted by pressure in walk-

Figure 5.

Figure 6.

ing into equino-varus. He came to Boston in September, 1847, and consulted Dr. Inches, who referred him to me. The parts divided were an adventitious ligament, broad, thick, and unyielding, which extended from the os calcis to the base of the great and second toes; this was formed, probably, from the plantar fascia—the flexor longus pollicis and the tendo-Achillis.

This case was remarkable not only for the severity of the distortion, but also, considering the age of the patient, for the unusual rapidity of the cure. The operation was done on the 22d of September, 1847. On the 30th, the toes were straight, the foot at a right angle with the leg, and the patient, for the first time in his life, could place his heel upon the floor. The plaster cast numbered 6 (figure 6) is the same foot after treatment.

There is also upon the table for examination the daguerreotype of a child, 4 years of age, from Cohoes, New York.

This portrait was recently forwarded in answer to inquiries concerning the state of the feet. They had previously been operated upon by a distinguished surgeon of Albany, but were a severe form of double varus when brought to Boston two years since. It gives the full length figure of the little boy, and the unerring impress of solar light represents the feet as perfect. An artistic response of this kind is certainly as graphic and satisfactory a reply to his queries as the physician or surgeon could desire.

[Dr. WARREN remarked that he had been in a position to see a great number of the cases operated upon by Dr. Brown, and also after treatment, and that he had truly been surprised at the perfection of the cures and the great care and unwearied attention by which this favorable result was accomplished. He thought it very important that all of this class of cases should be placed in the hands of some one or two of the profession who had given great attention to the subject, and who had the necessary variety of apparatus by which alone a successful issue could be obtained. He said that various cases were brought to the Hospital—poor patients—upon whom they felt obliged to operate, and that in a short time sores would appear upon the feet, and various other drawbacks would occur, and before the patients left the institution the surgeons were heartily tired of the cases.

Dr. J. HOMANS remarked that he fully concurred with Dr. Warren respecting the treatment of cases of this description by Dr. Brown.

Dr. H. having been a member of the Board of Trustees of the Boston Orthopœdic Association, had opportunities to witness the practice of the Drs. Brown. The results of these cases were generally successful, some of them surprisingly so. He had seen several of their cases in private practice, some very unpromising, attended with like success. It gave him pleasure to be thus able to testify to Dr. Brown's skill, and to the zeal and perseverance which he so constantly manifests. When we consider that this class of cases do not abound, it is desirable that they should be treated by a few only, whose experience and skill will be thereby increased, the necessary apparatus in all its variety be constantly on hand, and thereby the best results attained.—SECRETARY.]

# ASPHYXIA FROM IMPERFECT COMBUSTION OF GAS.

[Committee's Report of the Case, read before the Boston Society for Medical Improvement, Feb. 8th, 1858.]

THE Committee appointed January 25th, to investigate the circumstances of the recent fatal accident, attributed to a gas stove, presented the following report of the case.

Mr. J. H. B., æt. 48, resided in Roxbury. For fifteen years he has suffered from severe dyspeptic symptoms, recurring more or less frequently, and occasionally attended with great distress and pain. Latterly the paroxysms had come on every three or four weeks, commencing with great pressure in the epigastric region, which was soon followed by severe pain. These attacks were always an hour or two after a meal. He is reported to have been at times rather imprudent in his eating.

Generally, his bowels were in a loose condition, with now and then a passage of some undigested food. His nights were frequently, from the above causes, sleepless, restless and painful, so much so that he has been known to have often started from his house at one or two o'clock in the morning, and walked into Boston as far as State street and returned. In connection with this, it should be mentioned that, for the above reasons, he was in the habit of lying on the outside of the bed without taking off any of his clothes.

He appeared as well as usual the day before his death. On Sunday night, January 24th, he probably had one of these dyspeptic paroxysms, and did not undress himself, as only the outside of the bed was tumbled. His sleeping room was below the one where he was found. It is not known when he went up stairs, nor how long the gas stove had been burning. This stove, known as Davis's Gas Stove, was purchased about six weeks previous to his death. As it was not in his sleeping chamber, he was not in the habit of going much into this room, except to take a bath in a small room

leading from it. It is not known how long he had remained there at any one time with the gas stove in operation. The gas was usually lighted when he took a bath. So far as could be ascertained, he had never made any particular complaint against the stove, either in regard to any smell or effect upon his general feelings, though the domestic said that she had noticed at times a peculiar smell in the entry, and heard him complain lately more than before of suffering from headache.

He was seen by a domestic in an opposite house, on Monday, at 5, A.M., standing, with his dressing gown on, at the window near the bath room. Her attention was directed there, on account of her seeing a bright light in the room at that early hour. No one saw him alive afterward, so far as can be ascertained.

At 8, A.M., his nephew, attracted by a strong smell in the entry, went to the door, and on opening it saw his uncle in a sitting posture on the lounge, not reclining, with the side of his head resting on his shoulder. Seeing him so pale, he supposed the case one of fainting, and carried him immediately to the window and poured water upon his face. But he found that he was dead. On entering the room, the nephew stated that it was full of a bluish mist and a strong acid odor. Both gas lights were burning, as also the stove burner. There was a circular red-hot band about the stove. He was obliged to leave the room as quickly as he could, from the effect upon his head, eyes and breathing.

Dr. Windship was immediately sent for, and Mr. B. was placed in another room. Dr. W. supposed he had been dead for some time.

*Post-mortem Appearances.*—There was a general pallor of the surface of the body. The countenance was pale and tranquil. There was a pretty firm general cadaveric rigidity of the body. On opening the chest, the lungs were found perfectly collapsed, with two or three old adhesions at the apex of each lung. The color was similar in each, consisting of alternate transverse bands of an almost scarlet redness, and black pigment spots of the size of a pea. This was uniform over their whole surface. On pressure, there was fine crepitation, and as much as the thin, collapsed condition of the lung would admit. Every portion had a natural, soft, yielding feel, and there was no sign of any venous congestion, not even the usual *post-mortem* change in the dependent portions. The pericardium contained about an ounce of thin, yellowish li-

quid. The heart was perhaps smaller than natural, hard and firm to the touch, as if in a strongly contracted state. On removing it, the blood that escaped was fluid, dark colored, and without any coagula. The walls of the left ventricle were of a color difficult to describe, being something between a cherry red and scarlet. The valves were perfectly natural.

An incision being made in different parts of each lung, there escaped a fine frothy, thin liquid, in a small quantity, the color of which on the hand was different from that of usual venous or arterial blood, and resembling a sealing-wax redness. Very little dark blood was seen in a large vein that was divided. The substance of the lung, throughout the divided portions, was of this sealing-wax redness, as was likewise the mucous membrane of the bronchi.

The whole of the interior of the upper half of the intestinal canal and of the stomach, except a small dark spot of cadaveric softening near the cardiac orifice, was in a highly injected condition, the color of which was of a bright sealing-wax redness. The blood pressed from any part of the cut surfaces was of neither the usual arterial or venous color, but of a peculiar shade of red, not pink nor scarlet, but decidedly more like sealing wax, and giving the appearance almost as if painted. This color gradually became fainter in the lower half of the intestines, and was nearly absent at the commencement of the large intestine. The cardiac and pyloric orifices were both considerably contracted.

The stomach was about two thirds full. Throughout the stomach and intestines, there was not the slightest appearance of any ulceration. In some spots, Peyer's patches were seen to be prominent, but not ulcerated. The left kidney was much longer than the right, and larger than natural. Its substance was about an inch and a half in thickness, and of the same color and consistency as the walls of the heart. The bladder was full of urine. The vessels of the surface and substance of the brain contained much less blood than usual. There was not the slightest appearance of any congestion there, nor in the vertebral canal, as far as could be seen. The lateral ventricles had about a drachm of fluid in each.

The above sealing-wax color was very striking and peculiar. As far as can be ascertained, no parallel case has occurred; but in those *most nearly* resembling it, as in the deaths from the fumes

of burning charcoal, though the appearances were in some respects similar, they were not alike in all cases. The anatomical characters alone furnish no positive data upon which to base an opinion of the cause of death.

When the committee visited the house of Mr. B., the gas stove had been lighted about two hours and a half previous to their arrival. A distinct odor was noticed in the entry leading to the room in which the stove is placed; and on entering, the room was found filled with a bluish vapor, of a suffocating odor, and highly irritating to the throat when inspired. The odor was that of the mixed products resulting from the imperfect combustion of coal gas. About twenty cubic feet of gas were found to be consumed per hour. The room is about thirteen feet square, with a rather low ceiling. The fire-place was closed up, except an opening for a stove-funnel, also covered.

The sole products of the complete combustion of pure coal gas are gaseous carbonic acid and the vapor of water. Whether the gas is burned for illumination, or mixed with atmospheric air previous to its combustion, as when used to furnish heat, the products of perfect combustion are the same, and no odor is evolved. Incomplete combustion furnishes entirely different results. Besides water and carbonic acid, there are evolved carbonic oxide gas, vapors of aldehyde and formic acid, and probably other substances. Aldehyde and formic acid have powerful odors, and are irritating to the respiratory organs. Carbonic oxide is known to be an active narcotic poison, and is now regarded as the chief cause of the deadly effects of burning charcoal. The products of imperfect combustion are far more deleterious than carbonic acid gas, or unburned coal gas. Carbonic oxide especially is a remarkably insidious poison, and is dangerous even when mixed with a large proportion of atmospheric air.

The committee are of opinion that an adequate and sufficient cause of the fatal result in this case is found in the deleterious products resulting from the imperfect combustion of coal gas. As they were appointed to investigate the case before them in its medical bearings only, they have not carried their examination farther, nor inquired into the causes of the defective operation of the gas stove.

JOHN BACON,
CALVIN ELLIS, } *Committee.*
GEO. H. GAY,

# CASE OF MONSTROSITY.

## TWO FŒTUSES UNITED, FACE TO FACE, FROM THE UMBILICUS TO THE UPPER THIRD OF THE STERNUM.

BY J. B. S. JACKSON, M.D.

Read before the Boston Society for Medical Improvement, April 12th, 1858.

HAVING seen, a few weeks ago, a newspaper account of the case above referred to, I wrote to my friend, Dr. R. K. Jones, of Bangor, Me., and with his assistance have been able to get the specimen for dissection, and an account of the birth, from the attending physician, Dr. D. J. Perley, who practises in Old Town, a few miles from Bangor.

The mother is 43 years of age, and has had seven or eight living and well-formed children. Her labors have always been hard, and the three last have been followed by "lymphatic swelling" of one or both lower extremities. On the 11th of February, about 3, A.M., Dr. P. was called, and found her in labor. "At a proper time" he examined, and found the vertex presenting. As the pains increased, Dr. P. was surprised to find that the head did not descend as it should, and "more especially at its tardy progress through the vulva." "The stasis of the head for nearly two hours, with but a little change, is a very noticeable circumstance in the mechanism of the case"; what was gained by the uterine contractions being lost during the intervals. The head was at last brought through the vulva without the use of instruments, but still the shoulders did not descend; and on examination, "the head of another child was found impacted snugly against the left side of the pelvic bones near the acetabulum. I endeavored to push the head back, on the accession of pain, but without effect. As it appeared to occasion the woman considerable suffering, I desisted from such further attempts, and endeavored to extract the first child. I succeeded, with some embarrassment, in bringing down two arms, the recovery of which increased the space in the lower aperture. The twofold advantage gained of increased space and of the power ex-

erted in drawing the shoulders forward to the outlet, and the frequent audible yielding of the connections of the bones of the pelvis (probably the sacro-iliac and sacro-coccygeal), enabled the head of the second child to slide under the arch of the pubes, and they were both at once ushered into the world alive. From the relative position which they assumed at the instant of their birth, I judged that in their descent through the pelvis, the head of the second was wedged upon the right shoulder of the first." The children were born about 3, P.M. "Animation was more vigorous, and perhaps a little longer manifested in the second presenting child than in the first; and, I think, without the aid of accurate time, continued about fifteen minutes." "There was but one placenta, and but one funis until it arrived within about two inches of the fœtal abdomens, when it divided, and a branch went to supply each of the children." As a small portion of the cord was still connected with the fœtuses, and I saw no appearance whatever of the division referred to by Dr. P., I made some inquiries of him in regard to this point, through Dr. Jones, and he very positively re-asserted the statement. "The pulsation of the cord at birth was very strong, and continued, though with lessening force, probably ten minutes. Whilst the pulsation was yet considerable, I divided the cord some inches above its natural division for distribution, omitting the usual precaution of tying the fœtal portion, through which some blood escaped, and animation soon ceased."

The patient was much exhausted by her labor, and subsequently "had symptoms of peritoneal fever," with "lymphatic swelling of the whole of the left lower extremity;" but, on the 15th of March, the date of Dr. Perley's letter, she was doing well, though still confined to her bed. An abscess, however, was forming about the "right sacro-iliac symphysis."

The fœtuses had been perfectly preserved in spirit, and were in no way injured. Weight five pounds ten ounces (avoirdupois). Length fifteen and three fourth inches. Equally developed and well formed, excepting the fusion. No hernia at insertion of cord.

The two abdominal cavities communicated freely, and the alimentary canal was essentially the same as in the case figured by Cruveilhier (Anat. Path., liv. xxv.). Referring to the two fœtuses as A and B, each had its œsophagus and stomach; and these last were equally developed, which they were not in Cruveilhier's case. The duodenum of A and B, at the distance respectively of 1 inch and ¾ of an inch from the pylorus, united to form a single in-

testine 37 inches in length; this then again divided, but first formed a dilatation nearly as large as the top of the thumb, and of a somewhat triangular form. Below the division, the small intestine of A measured 23½ inches, and that of B 32 inches; the large intestine of A 16½ inches, and that of B 23 inches. At a distance of 2¾ inches from the division, there was in the intestine of A what may be called an abrupt, linear obliteration of the canal; the whole intestine below this point being smaller than that of B, and filled with very thick mucus; whereas the large intestine of B was full of common meconium. The folds of the intestines were to a considerable extent adherent, as from an imperfect development of the mesentery; and this was particularly the case with the large intestine of A. A dilatation of the single intestine, and just as the two sets are to be formed, I have several times met with in double monstrosities, and am not aware that it has been particularly, if at all, noticed by others.

There were two livers, the whole mass being small for the two fœtuses. They were intimately fused by their upper edges or extremities, and each had its gall-bladder; the ducts being traced, but not quite to the intestine. In each, the umbilical vein entered upon the convexity; and each had its suspensory ligament, the two being in a continuous line.

The diaphragm formed a large arch, as usual in these cases, and had its usual connections.

The two livers did not belong respectively to the two fœtuses; but each was composed of the right lobe of one fœtus and the left lobe of the other; as if, in the first period of their formation, they had been divided, widely separated, and then fused. And so the formation of the diaphragm may be explained; the space left by the separation of the two being closed by new-formed muscular substance. The upper third of the sternum, also, of each fœtus being properly formed, the remainder consisted, on each side, of a fusion of the divided sterna of each. I do not mean to say that any such division originally existed, or subsequently took place, nor that it did not; but I would simply give an idea of the parts as they now appear.

The following organs were found in each fœtus, and they were well formed: the spleen, two kidneys with their renal capsules, the bladder, and the testicles; all four of the last being in the abdomen. Penis of each, large. Vesiculæ seminales of each, partially dissected. Pancreas of one, felt, but not dissected.

The heart was single, but formed of a fusion of two, and contained in a single pericardium. Its transverse diameter was much greater than the longitudinal; the ventricular portion being considerably broader than in the tortoise. Between the two right auricles there was nothing like a septum. The left auricles also opened freely into the right; but that of A the most so. The four auricles were distinctly marked by appendices. The upper vena cava of A ran down upon the left side, instead of the right, but opened into the right auricle; the upper cava of B, and both of the lower venæ cavæ, were distributed as usual. The pulmonary veins of each fœtus, respectively, were collected from the different lobes of the lungs, and formed a common trunk half an inch in length; that of A opening as it should, but that of B opening into the right auricle of B. The tricuspid valve of A was sufficiently marked; from the ventricle, a pulmonary artery arose and sent a branch as usual to each lung, but none to the aorta. The left ventricle of A communicated pretty freely with the right, but not directly with the auricle. The aorta that arose from this left ventricle could be inflated, but a small probe could not be passed into it; the usual vessels were given off at the arch; the right common iliac artery was very small, as there was no umbilical artery upon this side, the left being quite large, as was also the umbilical. The tricuspid valve of B was rather small. The pulmonary artery arose from the right ventricle, and gave off a ductus arteriosus as well as the two pulmonary branches. The left ventricle of B had no communication with the right, but was directly continuous with the right ventricle of A. The aorta arose from this left ventricle and gave off its branches properly, excepting the left carotid, which arose from the origin of the innominata. In the case of the iliac arteries, the distribution was just the reverse of what it was in A; there was but one umbilical artery, and that was upon the right side; the right common iliac being, of course, very large, and the left proportionally small. The different vessels, as they entered or arose from the heart, were of the proper size; but none of them were cut open to expose the valves. The thickness of the ventricular parietes, and the size of the cavities, were about natural; and upon the external surface there was no appearance as of a division within, excepting the right ventricle of B, in which this appearance was quite marked.

Each fœtus had its two distinct pleural cavities, its two sets of lungs, some of the lobes of which were rather more fissured than usual, its trachea, larynx, thyroid and thymus glands.

# EXCISION OF THE KNEE-JOINT.

BY SAMUEL CABOT, JR., M.D.

Communicated to the Boston Society for Medical Improvement, June 8th, 1857.

Wm. H., laborer, 20 years of age, leuco-phlegmatic constitution. In February, 1853, while at work in the woods, he found his right knee "getting stiff," as he said. This symptom increased from day to day, so that he was obliged after a few days to give up work, and lie still for three or four weeks. He then went to work again, and continued at work for about a fortnight, when his knee troubled him so much that he was obliged to quit work again. On the 2d of April, 1853, he entered the Massachusetts General Hospital, where he remained for three weeks, after which he was well enough to work on a farm, until June, 1854, at which time his knee became again so painful and stiff that he entered the hospital a second time. Under the use of issues, &c., he recovered the use of his limb sufficiently to go to work again for a month. He called on me in September, 1854, with some return of the inflammatory symptoms about the joint. I advised him to take a voyage to Ireland, which he did, and remained about four months in that country, among his friends. On his return, he showed me his knee, which seemed to be almost perfectly well. I cautioned him to use it carefully, and advised him to work in the open air. He went on to a farm, and continued at farm work until April, 1856, at which time he came to the city, and drove a team until Aug. 29th, 1856, when one day, in walking along the sidewalk, he fell through a scuttle, producing an injury of the joint which had been in trouble before, and causing an inflammation that laid him up for 6 weeks; after which, he got about again and drove his team for a month. But inflammation coming on again, he was laid

up all winter, and on the 5th of May, 1857, he entered the Hospital by my advice.

On the 6th of May, after having the case represented to him, he decided to have excision of the joint performed. At the time of his entrance, and for some time previous, he had had a discharge of a purulent fluid from a sinus, opening just above the outer hamstring, between it and the external condyle of the femur. The joint was swollen, and somewhat tender. Motion was painful. The foot was everted. He had no cough, and no symptoms of trouble in the chest. His health was somewhat deteriorated by confinement and suffering, but his appetite was fair, and his digestion good.

May 6th, 1857, he was taken to the amphitheatre and fully etherized. The operation was performed by the H incisions. It being found difficult to get at the joint without removing the patella, moreover that bone being found much diseased, it was removed; the joint was freely opened, the ends of the bones pushed up, and freed from the soft parts, and a bow saw with a very narrow blade, the teeth of which were directed upward, was pushed over the ends of the bones, from which slices were removed, by sawing from behind forward. Finding that there were several cavities, containing tubercular-looking matter, which were left behind, and not wishing to shorten the limb more than was absolutely necessary, I removed these diseased parts with the gouge and gouge-forceps, connecting the cavities thus formed with the exterior of the bone by canals, so as to allow the fluids freely to discharge themselves. The limb was then straightened, and the skin having been brought together with stitches, it was placed in a gutta-percha trough splint, previously fitted to it, with a hole cut corresponding to the ham, to allow the escape of the fluids. The surfaces of the bone came well together, the limb being perfectly straight, and only about an inch shorter than the sound one.

The Hospital Record shows that he had some pain, requiring opiates, and some fever, with acceleration of the pulse, for about a week, at the end of which time suppuration was fully established, amounting, by estimate, to about three ounces per diem. The appetite was good; he was taking beef tea, chicken, &c., with a good relish. Partial union of the skin, by the first intention, took place. He required tonics, porter, and stimulating diet, for something more than a month. At the end of six weeks the bones were

found to be united and quite firm, though the patient was timid, and unwilling to allow the limb to be handled without taking hold of it himself.

Three months after the operation he had an injection of nitric acid, diluted with water, for a couple of sinuses which were still open and discharging, and at the bottom of which rough bone could be felt. At that time he walked about the ward on crutches. The injection several times caused inflammation, and some constitutional disturbance, though on the whole it seemed to be useful. The discharge gradually diminished. Several small bits of bone were from time to time removed. He got out of doors, and walked about the grounds in the course of the fourth month, with decided advantage to his health and appetite. He gradually got to using one crutch, then a cane, and at this time he can walk about without any cane. He keeps a fruit-stall at the North End; he buys his own fruit, and walks about town freely. He has this evening ridden to my house, and walked from thence to the meeting, keeping up with me at my ordinary gait when not hurried, and has walked up the two long flights of stairs to this room nearly as fast as I should have done if unaccompanied. There is still a sinus open, from which escapes a small quantity of watery fluid, but it very seldom annoys him. He has had one slight attack of redness and pain since leaving the Hospital, followed by a discharge of pus, from which, however, he entirely recovered in a few days. The bony union is complete and firm.

# LACERATION OF THE PERINÆUM.

BY WILLIAM W. MORLAND, M.D.

Read before the Boston Society for Medical Improvement, October 25th, 1858.

*Laceration of the Perinæum during Labor; Operation for its Restoration, by the Quilled and Interrupted Suture; advantage of attempting this in all serious cases, &c. &c.*

MRS. R., a very stout, fleshy woman, of excellent constitution and 32 years old, was taken with the premonitory pains of her first labor about 3 o'clock on the morning of December 5th, 1857. I was sent for at 7 o'clock, A.M., and saw her at 8½ o'clock. Infrequent and premonitory pains, only, were observed; and at 10 o'clock she was in much the same state. At noon, true labor-pains began, but with long intervals; at 6 o'clock in the evening they were stronger and more frequent, but not satisfactorily so. At 8 o'clock, however, their strength increased and the intervals became much shorter, but the labor was prolonged until 5 o'clock, A.M., of December 6th, having been about seventeen hours in duration. The presentation was of the *vertex;* there was much rigidity of the os uteri and of the perinæum; the head was large, very completely filling the pelvic space, but the finger discovered sufficient room. Forceps might have expedited the labor an hour or so, but it was thought better not to use them, the woman being a *primipara* and the parts rather unyielding. About twenty minutes before 5 o'clock, there came on three or four tremendous pains, in quick succession, the last two distending the perinæum to its utmost; the vaginal outlet seemed very much too small to allow the egress of the head with impunity to the perinæum. Support was applied by the right and left hands, alternately; and once by both simultaneously. The head emerged under the last of the pains above mentioned; the *fourchette* tearing perceptibly, but

slightly; the shoulders were retained for several minutes, and passed, finally, with considerable difficulty, under very slight traction, at the next expulsive effort. I immediately perceived that the perinæum was torn completely down to the *sphincter ani;* the recto-vaginal septum being found intact by digital examination.

The child showed no sign of life, was blue, and could be doubled up like a rag, the head falling loosely about; the cord was feebly pulsating. Marshall Hall's method was at once tried; in a few moments the child gave a faint gasp; there was then a long interval, but perseverance with the motions, without any attempt at artificial respiration by insufflation of air, was finally successful. About fifteen or twenty minutes, by estimate, were thus occupied. The placenta was lying in the vagina, was easily removed, and the woman put to bed.

At 3 o'clock in the afternoon of the same day, with Dr. Gray's assistance,* I united the rent perinæum with both quilled and interrupted sutures, after Mr. Isaac Baker Brown's method. The lower part of the wound curved a little to the woman's right, was irregularly lacerated, and just entered the edge of the sphincter. Two deep sutures, with waxed twine, were used to hold the portions of gutta-percha bougie acting as quills, and three interrupted ones with saddler's silk, inside of the others, to approximate the edges of the skin. Mr. Brown's recommendation, to divide the *sphincter ani* on each side, in these cases, was not complied with, and there was no occasion subsequently for regretting this. Indeed, it would seem that, in the majority of cases, in the absence of spasmodic contraction of the muscle, this serious addition to the operation need not be made. A wet compress, covered by a dry one, was applied over the united wound. The bowels were freely opened the day previous. At night the patient took two grains of opium; the urine was drawn off by the catheter, and a strip of linen, spread with simple cerate, was substituted for the wet compress. The patient was enjoined to lie on the left side, keeping the thighs closely together; they were not bound together. The strictest cleanliness was directed, and she was desired to retain her urine until the morning visit, which she did without inconvenience.

* Dr. Gray expressed much interest to know the result of this operation, having had a case of perinæal rupture, the rent extending to the anus, and which, treated by position and cleanliness, only, never united, nor even filled up by granulation. There was thus literally no perinæum.

Dec. 7th, 9 o'clock, A.M.—The patient passed a comfortable night and slept soundly; no pain of any sort; no soreness of the abdomen or wound; she is cheerful; the skin is cool. Catheterism. Careful dressing of the wound, as before. 5½ o'clock, P.M. —Catheterism. Opium pill (one grain) at bedtime.

8th, 9 o'clock, A.M.—Night good; some soreness of the parts. Catheterism. Opium pill (one grain) at 3 o'clock, P.M.; catheter at 5½, P.M. Two grains of opium at night.

9th.—Same report. Patient was obliged to pass her water, but precautions were used to prevent its trickling over the sutured parts; the linen, smeared with cerate, also keeps the discharges well from them. One grain of opium at noon; catheterism at night.

10th, 8½, A.M.—Night comfortable; notwithstanding my early visit for the purpose of passing the catheter, she had anticipated me by a few minutes, having voided urine while resting upon her hands and knees, as directed if she could not wait for catheterism. Patient seems bright and well. No swelling of the wound; one spot on the left side somewhat sore; the nurse had used too much friction there in cleansing the parts. Cerate, ablution, syringing of the vagina. One grain of opium at 5, P.M. Catheterism.

11th and 12th.—Same course; doing well. The pulse, throughout, was equable and natural.

13th, 10, A.M.—At breakfast, with an appetite. Complains of weakness. Hitherto has been kept on farinaceous diet solely; may have beef-tea, toast, &c. At 12½, P.M., I removed the sutures; the lower loop of the right quill had become detached since yesterday; the upper one and all the rest were *in situ*. Perfect union seems to have been obtained throughout. The parts were carefully washed, and cerated linen applied. The patient felt "more comfortable" immediately. One grain of opium at 5 o'clock, P.M. There have been no unpleasant symptoms or sensations from the long confinement of the bowels; the diet has been chiefly a liquid one. Assiduous attention to cleanliness is maintained, and quietude recommended.

14th.—Doing well. Two drachms of washed sulphur, with half a drachm of cream of tartar, were ordered as a laxative.

15th.—Wound looking well; the bowels were spontaneously evacuated before the laxative could be taken; she is to have the latter, however (if no other discharge occurs, naturally), to-mor-

row evening. The dejection consisted of very hard matters, yet no injury was sustained by the parts sutured; the patient had been instructed how to favor the passage of the fæces. The same general course is pursued.

18th.—The perinæum is healed, except at one small spot, where the quilled suture became detached, and at the orifice of insertion of the upper interrupted suture—the latter very slightly open; a probe cannot be passed through; no fistula; touched both spots with nitrate of silver. The patient is sitting up, and complains of nothing except some pain in the back. Advised rest in the recumbent posture, she having been too anxious to get up. The bowels were satisfactorily opened by the medicine given on the 16th, and have acted once since, spontaneously.

21st.—Patient up and dressed; the perinæum looks well; the lower aperture nearly, and the upper wholly, closed; touched them again with nitrate of silver.

30th.—Union perfect; no soreness. Length of the linear cicatrix a full inch—rather more, than less.

*Resumé.*—Patient's age, 32 years. Duration of labor, 17 hours. Perinæum thick, and slow of dilatation. Head of child large, very accurately filling the pelvis. Slight laceration on the passage of the head; complete, on that of the shoulders. Asphyxiated state of the child; restoration by postural respiration. Wound of the perinæum united by quilled and interrupted sutures, ten hours after its occurrence. Sutures retained for seven days.* Union complete and sound. *Adjunct means.*—Opium (ten grains in seven days), cleanliness, position, catheterism. Urine evacuated solely by the catheter during three days; and partially so for the three next succeeding days, the morning discharge alone being unaided. The patient might have safely arisen from bed in eight days, but was not allowed to do so for twelve. No elevation of the pulse, and no feverishness.

That slight lacerations of the perinæum frequently occur in *primiparæ*, is undoubted; they are most commonly unnoticed, both by practitioner and patient; and when of this description, if discovered, are safely entrusted to the natural reparative powers, with the usual care for cleanliness, &c. It is different in those

* The sutures might have been sooner removed, and perhaps with advantage. Too long retention of quills and threads is likely to induce ulceration and even fistulæ. Bérard says four or five days.

instances where the rent extends to the *sphincter ani*, leaving only the recto-vaginal septum intact; and it is to this class of cases that consideration is given in this paper—there being no question as to the necessity of surgical interference when the septum is torn, and the two neighboring passages are laid into one. Not infrequently, it may be believed, even the more serious lacerations are overlooked; although such as divide the septum could hardly be so.*

It is conceded that accomplished accoucheurs of long experience sometimes meet with this accident, although it is doubtless very often caused by careless manipulation, neglect of proper perinæal support, culpable haste in effecting the delivery, especially of the shoulders, and sometimes by the necessary use of forceps. An instance illustrative of the latter cause will be hereafter referred to, whilst examining the merits of the operation for uniting the torn surfaces.

As the etiological portion of the subject is of much interest, I take the opportunity to present the account of a case in which the conformation of the perinæum has furnished the foundation for an explanation of a certain number of examples of the accident. The same cause has been previously assigned. The present case is contributed by Dr. Buckminster Brown, of this city.

"Mrs. W., 20 years of age, was taken in labor with her first child, November 17th, 1850; I was called to her at 1 o'clock at night, and found the head of the child presenting. The *os uteri* dilated well, and the head progressed rapidly. As soon as there was any pressure on the perinæum, this part received firm and steady support. It is well known that the perinæum, under such circumstances, is extremely elastic, and stretches very considerably; making, however, all due allowance for this extension, the length, in this patient, from the *anus* to the *fourchette*, appeared to be much greater than usual. As the *vertex* passed through the *os externum*, a crack was distinctly heard and felt, the intervening tissues tearing and crackling under the hand, like stiff, dry parchment. The part was now still more firmly supported, and the head delivered without further injury. The passage of the shoulders, however, completed what the head had begun, and after

* "Fissuring and laceration of the cervix uteri and perinæum are not, as is generally supposed, rare lesions during labor; on the contrary, they are very common occurrences, especially in primiparous labors."—(SIMPSON. *Obstetric Works*, Part I., p. 330, American Edition.)

the entire delivery was accomplished, a rupture was discovered, extending to the *sphincter ani*. The patient was of an unyielding disposition, and no more active treatment was permitted than the application of cold water dressing, and the passing of a bandage around both thighs, in such a manner as to keep them from being separated. Complete rest in this position was enjoined.

"The result was a partial closure of the wound, leaving the vaginal fissure considerably larger than in the normal condition.

"I have alluded to the unusual length of the perinæum. It is possible that this may be found to be one of the causes of rupture. Other circumstances, undoubtedly, at times occasion this disaster—such as the large size of the child's head, &c.; but it may also, and not infrequently, arise from a remarkable length of the perinæum—this part extending upward so as to occlude, more than usual, the natural pelvic opening.

"The condition here referred to may not be sufficient, in degree, to warrant the term abnormal, and yet it may exist to such an extent as to obstruct the easy exit of the child, and, in other cases, to render parturition impossible without its removal.

"It is well known that this accident sometimes occurs in the practice of those whose reputation for care and skill is undisputed; where we feel assured that there has been no neglect of all proper precautions, and, also, where the cranial diameters have not been beyond the average, nor other cause apparent which would account for the injury. We must therefore seek elsewhere for its origin. The explanation above given is confirmed by a case recently related to me by Dr. F. H. Gray. In a child three years of age, he found the perinæum extending upward and forward, toward the urethra, so as nearly to obliterate the *os externum*—a small aperture, only, about the size of a crow-quill, being left, close to the *meatus urinarius*. In this instance, there is no decided line or mark to indicate that any abnormal adhesions have taken place, but there is simply a continuation of the perinæum, which will require an operation. Underwood, in his treatise on the Diseases of Children, mentions having met with several examples of this malformation of the external generative parts, in contradistinction to imperforation of the internal parts, which relates simply to the hymen. Children from three to six years of age were the subjects of this peculiarity as noted by the author cited, who also says, that in other instances the state has been neglected until the

age of puberty, or even until marriage, and describes the operation which should be done for its relief.

"These are, of course, extreme cases; an approximation, greater or less, to the same condition, without doubt more frequently exists. This may be so slight as to attract no attention, and it is in such cases that the practitioner is liable, perhaps to his surprise, to meet with laceration of the perinæum."

This peculiar conformation of the perinæum alluded to by Dr. Brown, may explain the accident in some cases, but the number, it would seem, must be comparatively small—at least of such as present the condition in a very marked form. In a case, the record of which has been shown to me by Dr. J. B. S. Jackson, and which will be subsequently cited for another purpose, it is especially mentioned that the perinæum "was very rigid and long." No *measurements*, however, are reported by either of these gentlemen, which is a matter for regret, since the length of the *perinæa* could then have been compared with the recognized average standard. This latter it may be advantageous to mention here, with especial reference to the spaces noted, by measurement, in one or two cases observed by myself. The perinæum, usually, is from one to one and a half inches long in those who have not borne children.* Obstetric writers are accustomed to pronounce it "of course" shorter in those who have (Churchill, Simpson, *et al.*); yet *multiparæ* as well as *primiparæ* have been the subjects of the accident. If it be thus uniformly shorter in the former, it may be supposed nearly certain that incomplete closure of the slighter solutions of its continuity is the cause. Churchill refers to the fact of its occasional inordinate length (or "breadth" as he terms it), as mentioned above by Dr. Brown. He classes it as one of the "abnormal deviations," and ascribes to it the risk of increased liability to laceration. (*Theory and Practice of Midwifery.*) The same condition is recognized as a predisposing cause by Mr. I. B. Brown, of London, in his treatise on "Some Diseases of Women admitting of Surgical Treatment," when he speaks of the perinæum being in some women "so lengthy, that is, extending so far forward, that it is distended by the advancing head like a bag, the *os externum* meanwhile remaining nearly quiescent; in other words, the propulsive efforts of the womb drive

* Cazeaux says, nine-tenths of an inch, to one inch and a half; Bérard, twelve to fifteen lines; Cruveilhier, eight to ten lines, on the average.

the child's head against the broad surface of the perinæum instead of toward the external outlet." (*Op. cit.*, Amer. Edit., p. 16.) It is especially necessary in these instances to apply support to the perinæum judiciously; and so that the head may be directed upward and forward, rather than permitted to be forced directly against the unusually long perinæal surface.* It is also recommended "to introduce the thumb and finger of the right hand as far as the vertex," and thus guide the advancing head in the right direction. (*Auct. cit. et. al.*) This I have often found advantageous in cases not presenting any unusual length of perinæum.†

Mr. Ashton, in his late work on the Rectum, speaking of perinæal laceration affecting that intestine, alludes to the occasional unusual length of the perinæum as an element in the production of the accident.‡

One of the chief objects of this paper is to discuss the question of employing surgical remedial measures in that form of lace-

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* Churchill, also, very properly insists upon the true mode of applying pressure, and speaks strongly of the harm that may easily be done if it be wrongly used. "I believe," he says, "that it would be better not to touch the perinæum than to make injudicious pressure; it has been my lot to witness more than one case where rupture was owing to excessive and injudicious support." (*Theory and Practice of Midwifery*, p. 181, Eng. Edit.) Dr. Simpson, of Edinburgh, whilst he admits that support, rightly applied, may often modify and diminish perinæal laceration, says that it fails far more frequently than is generally supposed, in entirely preventing it. (*Obstet. Works*, Part I., p. 330.)

† In the "Quarterly Report on Midwifery," in the *British and Foreign Medico-Chirurgical Review* for Oct., 1858, the following analogous views of Dr. Mattei (*Vierteljahrsschrift f. p. Heilk.* 1858) in relation to prevention of laceration of the perinæum are given:—"It is especially necessary that the head pass the vulva in a favorable direction. This can only happen when it passes with the necessary degree of flexion. Whilst the occiput passes under the pubic arch, the face has not yet quitted the pelvic outlet; first when the upper part of the neck comes under the pubic arch, can the extension of the head (or the separation of the chin from the breast) begin. If the distension of the perinæum begins too early, the head must pass the vulva with unfavorable diameters—namely, with the great oblique, or great or straight diagonal diameters. Such a passage easily causes laceration. Hence it is the task of the physician to prevent a premature distension of the head. This he effects by placing two fingers between the labia, or in some cases between the pubic arch and occiput, so as to bring the head downward and outward, at the same time laying the other hand on the hinder part of the perinæum, upon which the face is lying, and pushes this upward. This manœuvre is to be executed during the pains, which will thus protrude the head forward in the requisite arc. A very simple means of expediting the birth of the head, consists in compressing firmly the distended perinæum with the whole hand. This resembles the squeezing out of the kernel from a cherry. On the passage of the shoulders, care must also be taken lest the two shoulders pass together."

I have often firmly compressed the distended perinæum with the hand, as above stated; but was never aware that it expedited the birth of the head. Generally, at the time of such marked distension, the head is so near delivery, that it would be a nice point to decide whether any manœuvre hastened its egress or not.

‡ "The perinæum may be preternaturally broad." (*Op. cit.*, p. 322.) By "breadth" is of course meant *length* between the vagina and anus. I am at a loss to understand why the term "*breadth*" is thus used by several English authors.

ration observed in the case first narrated, viz., where the rent extends to the sphincter—Mr. Brown's "third variety." It may be said, generally, that the latest and best authority is in favor of interference, but that a thorough operation is but infrequently done, at least in this vicinity. The ill success which attended efforts recorded some time since, is, I believe, mainly attributable to the want of sufficient support of the edges of the deep and gaping wound. It is but rarely that the simple interrupted suture suffices to maintain the torn surfaces in apposition; but the conjunction of quilled and interrupted sutures has, if I am not mistaken, proved uniformly successful. This late modification of suture-process in these cases, and which, as has been stated, is due to Mr. Brown, seems never to have suggested itself in any degree to the older observers; and the failure, where sutures or ligatures were tried by them, is ascribable to the lack of support and the non-antagonized action of the perinæal muscles. The accident was early recognized. Celsus referred to rents about the vulva, but did not describe entire perinæal rupture. Ambrose Paré advised sutures; but many later practitioners thought them unnecessary; Duparcque even, was one of these. Strange to relate, Boyer condemned all attempts to heal a perinæal laceration. (Brown, *op. cit.*) Dieffenbach advised the closure of every rent, however slight, by sutures; otherwise, he taught, the healing would be superficial, the vulva enlarged, and consequently less, or almost no support afforded to the pelvic viscera. (*Dict. de Méd.*) And these reasons are urged upon our attention by other surgeons in very strong terms. In a limited degree, I can bear testimony to their entire justice. To sutures, Dieffenbach added incisions at the sides of the rent, and sometimes transplantation of integument, in case of loss of substance.* Opium was also freely used by him. The *sphincter ani* he never divided. In England, Mr. Brown tells us, the practice has been to trust almost entirely to Nature, neglecting manual interference; and a distinguished obstetrician is cited by Dr. Barnes as "consoling his brethren under the disappointment of baffled art, by assuring them that it is better not to cure the whole laceration."—(*Lancet*, Vol. II., 1849, and I. B. Brown, *op. cit.*, p. 19.) Such, as I previously stated, is still the general custom in this country, although the use of the suture has come more into vogue quite lately.

It is curious to read the unfavorable estimate of such men as

* A process of late successfully revived by Mr. Brown, Mr. Fergusson and others.

Blundell in reference to attempts at effecting union. His expressions are, "in general we are totally disappointed"; "a ligature may, now and then, perhaps, be inserted into the perinæum with advantage"; when union can be accomplished without sutures by "adhesive plaster only," that mode "is to be preferred." Such a result must be impossible in bad cases, and of course is not to be thought of in the form of laceration at present considered. "Even when re-union is accomplished," continues Blundell, "I suspect it is, in a manner, more apparent than real; for I doubt much whether the parts are ever brought back into the state in which they were before the occurrence of the accident." This assertion could not be made at the present day.

The French surgeons have been conspicuous in prosecuting attempts with the suture, and more or less success has attended their efforts. M. Bérard furnishes a full and instructive account relative to the whole subject, in the twenty-third volume of the *Dictionnaire de Médecine*, in which he alludes to the neglect of operative measures by the English surgeons. Mr. I. B. Brown's work supplies us with the "Cases on Record" in medical journals, and in one or two works on the subject.

In addition to the testimony recently afforded of the desirability of the operation, its absolute necessity, not only in the graver cases where the *sphincter ani* is torn through, but in the form next in severity, and which I have particularly referred to—the sphincter being intact—may be easily inferred by all who are familiar with the very possible, and nearly always probable, results. Mr. Brown very distinctly enumerates the reasons for operating; he says—"The third variety, in which the perinæum is lacerated, but the sphincter remains entire, is still more an object for treatment. Although the functions of the rectum are not disturbed, yet a rupture of this sort, left to itself, entails many evils; for, besides those immediately attendant on the enlarged vulva, there are others due to the want of support to the pelvic viscera; hence prolapsus uteri, displacement of the bladder (cystocele), or of the rectum (rectocele), and symptomatic disorders consequent on such dragging down. Wherefore every instance of this degree of laceration requires operative treatment. For, when left to nature, even if closure of the fissure occurs, adhesion is apt to be superficial, and the contraction ensuing upon the process of reparation is such as to draw backward the parts toward the anus, enlarg-

ing the vulva, and so predisposing to pelvic displacements."—(*Op. cit.*, pp. 36, 37.) Of the latter condition of the parts, I lately saw an instance in a patient of my own, a stout woman of 23 years, in whom laceration took place three years since, during labor with her first child. Wishing to compare the perinæal space with that obtained in the patient whose wound I united with the quilled and interrupted suture, I obtained permission to examine and measure it. Not quite half an inch of sound space intervened between the *sphincter ani* and the lower vaginal commissure. The latter was, moreover, bevelled downward, and had a semi-mucous-membrane aspect; so that but a few lines of actual *integument* could be said to exist.* The vaginal outlet seemed enormous, when compared with the other patient's vulva, or estimated by the usual standard. It is but right to say that there was no prolapsus, either of the uterus or bladder; yet the patient complained of a sense of looseness and weakness of the parts. I have previously stated that a careful measurement of the other (sutured) patient's perinæum, gave a full inch, and rather more than less, for its length; the lower commissure, moreover, was sharply defined, and altogether the restoration may be considered complete. Certainly a preferable result to that in the other case, where position and cleanliness, only, were put in requisition.

If it be said that we do not frequently hear of the *sequelæ* above mentioned as referrible to this species of laceration, it may be replied that, very often, many of these consequences may exist and not be complained of. They may be referred to other sources, really not their cause; or they may be but slight, and perhaps easily relieved. Prevention being better than cure, and security than risk, it surely seems an imperative duty to attempt closure of these rents in all cases.

The fact that very often, perhaps in the majority of cases, no soreness or pain is complained of by the patient on the occurrence of laceration, may lead the accoucheur to overlook the accident; and the woman may either be ignorant of it, or shrink from exposing her condition, as she often does the consequences above mentioned. Hence the marked necessity for digital, and even ocular examination of the parts, *post partum*, if any suspicion exist of perinæal rupture.

Two or three other cases may now be referred to, as bearing

* Dieffenbach (*Chirurgie*) strongly represents the undesirableness of this state of the parts.

upon the question of operation, and more or less strongly supporting the view here taken.

In the summer of 1856, Dr. Woodward, of Quincy, Mass., asked me to see a woman with ruptured perinæum, and who was under his charge. The patient was a stout Irish woman, 25 years of age, and the rupture occurred in her first labor. Craniotomy was called for, and was done by Dr. W., who has since informed me that the rent was caused by passing the fingers into the vagina for the purpose of accelerating the delivery of the shoulders. When I saw the patient, it was some time after the accident, and granulation was in full progress; the perinæum was torn quite to the margin of the *sphincter ani.* It was decided to trust the case to position and cleanliness. Wishing to know the result, I wrote to Dr. Woodward at the time of commencing this paper, and have been very kindly furnished with replies to my questions. Dr. W. states that the woman kept her bed about three weeks after I saw her, and then arose and resumed her family duties. A few weeks after that, Dr. W. saw her on the street, and in reply to his question, she said that she was "perfectly well." The perinæum was not at that time examined, but an opportunity offered on the 16th of January, 1858, when the woman was a second time confined under Dr. Woodward's care, and gave birth to a living child after twenty-four hours' labor, without any untoward occurrence. He, at my request, carefully inspected the parts before labor had progressed far, and found the space between the anus and the vulva only "about one third of an inch;" and on further examination, he "concluded that the portion which was torn in the former labor had not united together, but the parts had healed and contracted so as to form a very good vulva, which remained open to the cellular membrane between the vulva and the rectum, leaving the *sphincter ani* sound." "Of course," he continues, "there is a very slight imperfection of the vulva, it being more open than natural; but the woman finds no fault, and why should we?" To this query of Dr. W.'s, the answer might be made, that she doubtless would have had a better, that is a more natural, state of the parts, had the rent been united by sutures; and that so large a genital fissure as resulted, is, to say the least, not desirable.

That this state must often have the most lamentable *sequelæ*, clearly appears from evidence in another instance alluded to by Dr. Woodward in his note to me. He says: "I have never had a case

[of ruptured perinæum] in my own practice, with the exception of the one here referred to. I received a severe lesson, when a student in medicine, in the case of a young woman whom I attended for another physician, and whose perinæum was torn quite through [to the *sphincter ani*]; and although she was seen by experienced physicians, no attempt was made to close the wound, and she suffered prolapse of the uterus in consequence."

In this case may be found confirmation of the previous assertion, that operative procedures, in this form of the accident, are comparatively infrequently resorted to amongst us; and the fact of consequent serious mischief is likewise abundantly proved.

With reference to the case reported from Dr. Woodward's practice, that gentleman stated, in addition, that "the perinæum [in the second labor] bore the labor perfectly well, not offering quite so much resistance as one entirely sound." He also remarked that he had delivered other women when the perinæa had been torn in previous labors, and had found them in the same state as that of the patient above alluded to. He, however, inclines to believe that patients do passably well if the *sphincter ani* itself be not infringed. A more complete restoration seems, I think, to be demanded.

An instance of laceration of the perinæum in a case of difficult labor, and where forceps were used—the child's head having become locked in an extremely small pelvis—has lately been communicated to me by Dr. H. O. Stone, of Salem, Mass., who was the operator. Dr. S. was called in consultation, January 29th, 1858; the patient, a woman 30 years of age and a *primipara*, having been in labor about 19 hours. The head neither advanced nor receded; the face looked to the pubis; and the labor was instrumentally completed, as stated, the patient urgently entreating it. Dr. Stone writes: "With great difficulty the head was extracted. The perinæum was lacerated to the very edge of the anus; it was not torn exactly in the middle line, but a little on one side. At my visit next morning, the parts were very much swollen, and to think of using the suture in such a state of them, was out of the question. The case was entrusted to nature, position, and keeping the parts clean. It is now (March 5th, 1858) just five weeks since Mrs. —— was confined. She says she feels quite as well and strong as ever in her life. The perinæum, as yet, is but very partially united, but in time, I hope it will unite sufficiently for all practical purposes."

Whilst the very favorable termination of this case may well be remarked—both mother and child doing well at the above date—we perceive how long a time is required to obtain soundness for the parts when no operation is performed; since only "very partial" restoration was here effected in the space of five weeks. The propriety of the course adopted by Dr. Stone, in not attempting suture, under such circumstances, is evident. I may mention that, in ordinary cases, he is in favor of the operation.

At my request, Dr. J. B. S. Jackson has allowed me to extract certain cases of perinæal laceration, of the class under consideration, from his note-books. A few points suited to my present purpose will be presented from these records.

I.—November 16th, 1833. A stout, plethoric Irish woman, *primipara*, after about twelve hours' labor, was delivered of a large boy. Dr. J. found the perinæum to be very rigid and long. The latter quality and its probable influence, has already been fully referred to. The usual means to induce relaxation were all employed (fomentations, bleeding, &c.), and support was very faithfully and carefully applied when the part became distended by the advancing head. The perinæum was, however, rent down to the *sphincter ani*, "so that the forefinger being placed in the anus and the thumb in the wound, there seemed but a very thin partition between them." This was precisely the fact in the opening case of the present paper. There was, Dr. Jackson states, no pain nor soreness complained of by the patient. This again ratifies a preceding remark in reference to the necessity of thorough examination, even when the accoucheur does not perceive the occurrence of the accident at the time of the birth.

Dr. Jackson employed sutures, about one half an hour after the rent took place. He estimated the extent of the wound to be from one and a half to two inches up the vagina, "the thickness of the lacerated parts being very considerable." A curved needle was used, and four stitches were taken. One was placed rather more than an inch up the vagina; a second half way between the first and the inferior commissure of the vagina; a third through the skin, just below the commissure; and a fourth just above the anus. "These were all taken deep; the patient was kept in bed about five weeks, and an attempt made to keep her thighs swathed together, and for her to lie on her face, in which, however, she could not be induced to persist. The lochia were rather too free,

and gave some trouble; the bowels were not open for a week after the first day. The stitches soon became loose, and were cut away in a week or more. Union took place very slowly. About nine weeks after the occurrence, union was complete, except a small place which was still raw, and probably would unite before long. Perinæum of good size, if not as large as ever."

It will be allowed that the sutures were promptly and efficiently applied in the above case, and that every possible adjuvant means was put into requisition; and the issue of the case shows the advantage of the treatment. The only element impairing the latter, is the *length of time* necessitated by employing the interrupted suture. Had the *support of the quilled suture* been added, there is every reason to believe that very much would have been gained, and that union would have been solid and entire, as well as sooner effected. The case strongly supports the plan advocated.

II.—January 25th, 1834. M. H., 22 years old; *primipara;* stout and plethoric; child large;* perinæum unyielding; labor seven hours long. The perinæum was anointed well with lard, and support thoroughly applied at the proper time; rupture, however, was anticipated and took place, the rent reaching the sphincter. The wound almost exactly resembled that described in the previous case. No sutures were used; the thighs were bound together and confinement to bed enjoined. "In seven or eight days, however," writes Dr. J., "she was (notwithstanding convulsions had occurred) down stairs and about work. The lochia soon ceased. The bowels have acted regularly from the first. February 4th, perinæum in a healing condition; more so, if I remember rightly, than in the first case at the same period. February 11th, healing finely." The length of the healed perinæum is not stated.

The above instance may safely be pronounced remarkable, if not anomalous. Rules and regulations seem set at defiance. To say nothing of the very short time the patient remained in bed after confinement, she must have had an extraordinary aptitude of constitution for the healing of wounds. The case seems wholly exceptional.

III.—March 25th, 1834. A woman of 22 years, not very stout, *primipara.* Dr. Jackson felt a slight crack of the perinæal tissues with the hand which supported the part. On further examination, on the cessation of the pain, a slight fissure was found

* The large size of the children in these cases, is a nearly constant element.

within the vagina, about one half an inch in length, and "not much, if at all deeper than the mucous membrane." The patient was directed to restrain voluntary efforts; yet the perinæum was torn down to, but not into the anus. "No soreness was complained of." The next day the woman is reported as "up; soreness considerable." Remarkable to state, Dr. J. found about one-third of an inch of the wound, toward the rectum, "glued together." The patient had passed her urine naturally, resting on her hands and knees. March 31st.—"Soreness much less; no inflammation; no further union." April 10th, doing well; perinæum appears healed soundly to the distance of about two thirds of an inch from the anus; has abstained from *coitus*, by direction. Cleanliness was observed; no local applications were made; the woman attends to her household duties; there is no inflammation about the wound. "It would require one well acquainted with the parts, to know they had been ruptured." June 16th.—Ocular examination showed the perinæum apparently entirely healed; the scar was visible, and would pass for a well-marked *raphé*. "Patient seems very sure that the outlet of the vagina is no larger than before her confinement."

Measurement could alone determine the last point, by comparison of the length of the healed perinæum with the average recognized length of the part. The patient is hardly a judge of this matter, if accuracy be deemed essential; and a portion of an inch, even, is important.

The union obtained, under such untoward circumstances, in the two latter instances, is surprising, and must be unusual. Hardly more than one third of an inch, if so much, of sound perinæum could have been expected, and there are often cases where there is literally *no* perinæum, properly speaking, when the patient is left to nature.

Since the above paper was read to the Society, Dr. Lyman has mentioned to me a case of incomplete perinæal rupture, which so directly corroborates the opinions I have advanced, that I requested him to furnish me with the facts. These are accordingly presented in the condensed form in which they were recorded in his note-book.

"June 14th, 1855.—Mrs. H., age 31 years, *primipara;* position of the child, the 4th of Baudelocque; weight of the child, 9½ pounds; perinæum ruptured to the *sphincter ani*. Five hours after

the completion of the labor, the fissure was closed by quill-suture and two interrupted sutures. One grain of opium was administered.

"15th.—Pulse 80; urine, lochia, &c., right; the patient slept well; no pain from the sutures. A grain of powdered opium, twice in the day.

"16th.—Same record; continue pills; no secretion of milk.

"17th.—Pulse 72; one opium pill at night; milk coming.

"18th.—Milk free; no fever; union of wound perfect; sutures removed; an enema ordered.

"July 2d.—Union perfect.

"April 4th, 1857.—The patient was delivered of a second child, after thirteen hours' labor, and my note-book adds—'not a particle of laceration of the perinæum.'"

The case is satisfactory both as respects the efficacy of the treatment, and the sound condition of the new perinæum.

# PECULIAR FORM OF SPINA BIFIDA,

## WITH IMPERFORATION OF THE DUODENUM AND RECTUM.

BY J. B. S. JACKSON, M.D.

Communicated to the Boston Society for Medical Improvement.

THE subject of the above malformations was received a few weeks ago from Dr. James W. Robbins, of Uxbridge; and in connection with the case, the following communication, essentially, was made to the Boston Society for Medical Improvement. It was a new-born child, and born apparently at the full period; presenting by the arm, it was turned, and lived about half an hour after its birth. The mother had previously had three well-formed children.

Externally, the penis was quite deficient, and the urethra terminated beneath it and at some distance from its extremity. Over the lower portion of the sacrum was a soft, fleshy excrescence, about half as large as a nutmeg, of a flattened form, and covered by healthy skin. Otherwise well.

The stomach was quite large, and distended. The duodenum terminated in a perfect cul de sac just before the bile duct opened into it, and was distended to the size of a large nutmeg. The intestine, proper, commenced almost at once, and was in no way remarkable except at its lower termination. The rectum opened into the bladder at its fundus, with which it was intimately connected; it then tapered off to a small extremity like an appendix cœci, this terminating portion being about three-fourths of an inch in length, and standing off from the line of the bladder and rectum at a right angle. The bladder was exceedingly small; and the urethra so small, that though the bladder was once, and once only, inflated from it from without, several unsuccessful attempts were made to force air through it by inflating the bladder from the rectum. The right testicle was in the scrotum, and the left in the abdomen. Something was also found which it was thought at the time (but erroneously, as the microscope afterward showed) might

be an imperfectly developed third testicle, the vas deferens of which joined that of the left testicle about midway. Over the front of the sacrum were two thin, but firm, rounded, well-defined cysts, each one third of an inch or more in diameter; they lay side by side, but the cavities did not communicate, nor were they connected with the neighboring parts except by cellular tissue; these contained apparently a thin serous fluid. The left jugular and subclavian veins formed a trunk that passed down behind and in close connection with the left auricle, and opened into that upon the right side. Otherwise, nothing unusual was observed in the internal organs. The bladder was small, but the kidneys were about as large as usual. Cavity of the pelvis small.

The cutaneous excrescence above referred to, though apparently a small affair, was quite interesting. On removing the surrounding integuments from the parts beneath, a short, rounded, firm, fibrous-looking cord was seen to run from the excrescence to the termination of the spinal canal. This canal being laid open from behind, it was found that the spinal marrow was continued in substance downward, and nearly or quite through the sacrum, as it is continued down to the sac in a common case of spina bifida when the malformation is below where the cauda equina is usually formed. A small probe passed downward, within the theca, could not be made to enter the cord that seemed to connect the parts within the spinal canal with the cutaneous excrescence. As usually happens in these cases, the posterior laminæ of the last sacral vertebræ were irregularly developed.

In connection with this affection of the spine, I wish to refer to the report of two similar cases in the London *Medical Times and Gazette* (April 17, 1857), in each of which the external tumor, which was of some size, was successfully removed. The writer remarks upon them as "two examples of a condition of things of which, as far as we are aware, no other instances are on record." In the same Journal for April 25th, however, another case is given.

I can hardly believe in the great rarity of this malformation, notwithstanding the remark above quoted, and the fact that it certainly has not been noticed in general treatises, so far as I am aware. During a visit to Europe in 1851, I saw several specimens of this affection, as I regarded them, and of which I made memoranda. One was in the museum at St. George's Hospital, London; finely dissected, and showing the spinal marrow running down in substance into the sac; and in the same museum was a second spe-

cimen, unless there was some error in my notes. In the museum of the College of Surgeons, London, is one in an adult subject. In the Hospital Museum at Vienna is a tumor over the back of the sacrum of a new-born child, and which I supposed to be a case of the same kind, though this view of it was not alluded to in the catalogue. At Prague a specimen was seen, and I had some conversation upon the subject with Prof. Engel, to whom the idea of this form of spina bifida was new. At Bologna is a dried fœtal skeleton; a cyst, nearly as large as the two fists, arises from the back of the pelvis, and is marked as a subcutaneous encysted tumor. Lastly, in the Hospital Museum at Venice is a solid looking tumor, as large as the head of an adult, and projecting from the back of the pelvis of a nine months fœtus.

In addition to the above, I have seen the following cases here; and several of them have been seen by different members of the Society:—

1st. A healthy little girl, partially paralyzed; the tumor looked like a female breast, and a cast was taken of it for the Society's Cabinet (850), in 1845. She is now 18 years of age, and has been able to exercise pretty freely about the city; but for the last few months has been suffering from a pulmonary affection, that her physician, Dr. C. E. Ware, thinks may perhaps terminate in consumption.

2d. An infant, 14 months old, under the care of the late Dr. H. G. Wiley. The tumor was the perfect counterpart of the first case, but there was more paralysis. It died of diarrhœa, in 1843. I examined it after death, and the parts are preserved in the Society's Cabinet (801 and 1223). The spinal membranes expanded into a sac of considerable size, and the spinal marrow was continued down in substance to it. Sacral vertebræ malformed.

3d. In 1846, I received a seven months' fœtus, from Dr. D. H. Storer, and dissected it for the Society's Cabinet (802). This case must have resembled the one seen at Bologna. Instead of a solid tumor, a cyst was found, lined by a polished and vascular membrane, and containing, though by no means distended, ten ounces of serum. The spinal marrow terminated just within an opening upon the inner surface of the cyst. Various other malformations also existed.

4th. A girl, æt. 17, entered the Massachusetts General Hospital, April 3d, 1849, under the care of Dr. J. M. Warren. "The original tumor, directly over the spine (last lumbar vertebra and sa-

crum), is about as large as a medium-sized apple, is soft and fluctuating, and protected by a thick and tough skin. The second extends from the right side, is about as large as the other, and perfectly solid." I made no record of this case; and, unfortunately, it is not stated in the Hospital Records, from which the above quotation is made, whether there was paralysis; but this last, to some extent, at least, may be inferred from the fact that one of her feet began to turn in when she first began to walk, the other subsequently, and that the deformity was very great when she was seen at the Hospital. The left foot was much diseased, and amputation was performed by Dr. W.

5th. In 1852 I examined, for Dr. J. Homans, a case of extroversion of the bladder with other malformations, in a new-born infant. The tumor of the sacrum was divided into two portions, one of which was half as large as a small orange, and the other equal to a large nutmeg. These communicated freely, contained some ounces of clear serum, and were lined by a serous membrane, between which and the skin that covered them, was a loose cellular tissue, but no fat. Through an opening upon the inner surface of the cyst, a probe was passed upward into the spinal canal; and, the wings of the sacral vertebræ having been cut away, the spinal marrow was found to pass in substance down to the cyst. This case was published in the *American Journal of the Medical Sciences*, January, 1853.

6th. A healthy-looking little girl, æt. 2½ years, under the care of Dr. E. D. G. Palmer. The tumor was nearly or quite half as large as an adult fist, and mostly covered by healthy skin; but from it there arose a mass about the size of a nutmeg, and pretty well defined, of a bright red color, excoriated upon the surface, and having a soft and fluctuating look, as if from a protrusion of the spinal membranes, though it was quite fleshy to the feel. At another part of the tumor a sort of nævus was seen. The paralysis was very marked, though the child could walk about the room, with the aid of the chairs. The case was published in the Boston Medical and Surgical Journal, May 17th, 1855, and a cast of the tumor, taken for Dr. P. when the child was seven months old, was presented by him to the Society (Cabinet, No. 1284).

7th. A healthy-looking little child, with a solid tumor over the sacrum, and slight paralysis; this case I saw two or three years ago, but made no record of it.

8th. A woman, æt. 23, from St. Albans, Vt., and a patient of

Dr. J. L. Chandler. The case was published in this JOURNAL, Feb. 22d, 1855, and with it was given a summary of the four first cases above reported. A cast of the tumor, which was very large and ill defined, is in the Cabinet of the Medical College (1681). The paralysis was considerable, and the feet were much deformed, as in the fourth case; but the general health was good. Recently, I have received a letter from this patient, in which she says that in October, 1857, she fell backward from a horse, struck upon the tumor, and suffered severely in consequence. She is now, however, much better, and the tumor much reduced in size, though still considerably larger than before the accident.

9th. Within a few weeks I have seen, with Dr. Geo. Bartlett, a little girl two years and five months old, in whom the tumor is about one half as large as the patient's head. For the most part the skin is sound, and the mass solid to the feel. To a considerable extent, however, the surface is red and uneven, and the integument inflamed, and so it has been more or less from birth. There is no excoriation of the surface, but a few dry scabs show where there has recently been a discharge, which not infrequently takes place. This discharge is generally purulent, and has sometimes amounted to one or two drachms, but it has never been serous, as if from the spinal canal. Some parts of this red surface are soft, and it has once been punctured, but nothing of any consequence was discharged. In this case there has never been any paralysis.

Dr. Robbins's case, the report of which has led to the above details, makes the tenth and last that I have seen; a sufficient number, certainly, to justify the remark above made, that here at least this variety of malformation is not very rare.

I have always regarded this affection as a form of spina bifida; though I would not undertake to explain why it is that the integument is generally so sound, and the fat so developed beneath it, when the malformation affects the sacral region. I have only once (Dr. H. J. Bigelow's case) seen the healthy skin continued over the tumor when the spina bifida was in the lumbar or dorsal region.

The general characters of this class of cases, as above observed, may perhaps require some notice. The tumor over the sacrum is congenital, and grows with the subject. The skin and integument are generally healthy, and the whole mass is about as fleshy to the feel and as defined as the female breast. The size varies very

much, from a mere excrescence (Case 10) to a very large size. When the skin and integument is imperfectly developed, it is so to a small extent only, in comparison with the whole surface of the tumor. The dilatation of the spinal membranes may be very great, as in the third, the fifth, and in one of the foreign cases; but it is probably and generally very inconsiderable, judging from the feel of the tumor. The spinal marrow is continued down to the sac, so far as dissections have been made; and the sacral vertebræ are probably more or less imperfectly and irregularly developed. The subject, if otherwise well formed, may live to the adult age, but with more or less paralysis; in the ninth case, however, which might be regarded as a formidable one, from the size of the tumor and from the inflammation to a considerable extent of the integuments, this last symptom was wanting.

A very important question arises as to the treatment of these cases. In one of the above, an eminent surgeon proposed to remove the tumor, having probably no idea of its nature and anatomical relations. The patient was thought to have had a narrow escape; and yet when we consider the result of the operation in the two cases reported in the London journal, as above quoted, the fact that the tumor generally grows with the patient, so that in adult life it might get to be very large; and, further, the comparatively small size of the expanded spinal membranes in the large majority of cases, judging from the feeling of the tumor, it would seem very desirable to remove the mass, and possibly the greater part of it might be cut away without opening the spinal cavity. The solid tumor about this cavity probably gives it support, and tends to prevent its enlargement; but support might be given by some artificial means. An opening into the cavity might bring on inflammation that would extend along the spinal and even to the cerebral membranes. In one of the London cases, however, above quoted, and which occurred at the Hospital for Children, the tumor was excised, without the operator seeming to have thought of the spine, and yet the patient did well.

An apology may be necessary for re-publishing some of the above cases which are already in print; but, as so many have now accumulated, I have thought it best to present the whole in a body, and at the same time refer to European specimens, which may be examined by the correspondent of the London *Medical Times and Gazette*, or any others who may feel an interest in the subject.

*November 24th*, 1858.

# EXCISION OF THE KNEE-JOINT.

BY J. MASON WARREN, M. D.

Communicated to the Boston Society for Medical Improvement, June 14th.

D. L., 32 years old, a handsome, fresh-looking man, five feet eight inches in height, entered the Massachusetts General Hospital March 23d, 1857, for an affection of his right knee. Three years before, he had what was supposed to be a rheumatic attack in this joint, which lasted three weeks. Five months previously, the knee became painful and swollen, and he was confined to his bed for three weeks with it, but since then he has been able to walk without crutches. On his entrance to the Hospital, the joint measured three inches more in circumference than the sound, or left knee. There was great thickening of the capsule, which gave the impression of its having undergone a long inflammatory process; there was also fluctuation, but no pain except on pretty free motion.

A gutta-percha splint, extending from the hip to the toes, was moulded to the back of the limb, so as completely to prevent the motions of the knee- and ankle-joints. Counter-irritation was made, by the free use of the tincture of iodine. Under this treatment, the knee-joint, in four weeks, had diminished an inch in circumference. As the absorption, although gradually progressive, did not seem to be going on with sufficient activity, two deep issues were made, on May 7th, above the joint; and, on the 20th, two more below. The improvement from these applications was very great, so that on June 16th, at his own request, he was discharged from the Hospital, much relieved.

This patient kept about until June 2d, 1858, when he again entered the Hospital, by my advice, the disease having begun to assume a more troublesome form. The knee was quite painful, at times swollen, and almost useless. He was unable to bend it, and was obliged, in walking, to swing the limb forward between his

crutches. It was his wish to have amputation performed; but, on consultation, it was decided to give him the chance afforded by excision of the joint, and he readily consented to follow my advice.

The operation was performed on June 5th, in the following manner. A semi-lunar incision was made, commencing over the inner condyle of the femur, extending down to the tubercle of the tibia, and terminated over the outer condyle. The whole flap was dissected up, and the joint exposed. Some adhesions existed, and an attempt at anchylosis had been made, but the cartilages were in a great measure destroyed, and the bones eroded. The patella was firmly fixed to the femur, and did not participate in the disease, so that it was determined not to interfere with it. The condyles of the femur were sawn off, as also was the head of the tibia, by a narrow saw, like Butcher's, kindly loaned me by Dr. Cabot, and which was arranged to cut on the inner, instead of the outer edge, the saw being reversed in the handle. This was engaged under the condyles of the femur, and divided the bones with the accuracy of a knife. A common saw would not have been available, in consequence of the projection of the patella; and but for this arrangement, a chain-saw would have been required. On the top of the tibia, a tubercular deposit still remained, which was completely removed by a gouge, leaving a cavity about a quarter of an inch deep. The head of the tibia was so cut as to leave its edges a little more dependent than the centre, in order to favor the escape of fluids. The bony surfaces being carefully placed in apposition, the flap was secured in its situation by numerous sutures, and the wound covered with a little scraped lint soaked in blood. There was very little hæmorrhage, and only two small arteries were secured. The limb was then placed in a gutta-percha splint, nicely padded, which had been carefully prepared before the operation, and moulded exactly to its shape. The splint reached from the nates, and was adapted to the foot, so that the whole of the lower extremity was perfectly confined.

For the three days subsequent to the operation, the patient slept well, without pain in the knee, or fever. On June 8th, when the leg was raised from the splint and dressed, the wound was found to have united, except at the outer edge, where there was a discharge of pus. He was remarkably comfortable, and experienced but little pain from the dressing. He was allowed house diet.

On the 11th, the limb was again taken out of the splint, and a collection of pus was found on the outer, but none on the inner, side. The appetite was not very good, and he was therefore ordered the compound tincture of gentian. On the 14th, the limb was again dressed, and the wound was found to have discharged somewhat more than at the last dressing. The incision below the patella had apparently united by the first intention, and only the ends were open, to allow the escape of the pus. His appetite was much better.

This patient continued to improve, and left the Hospital in about two months, not having had a bad symptom from the date of the operation. In November, he was present at a meeting of the Boston Society for Medical Improvement, having walked nearly a mile from his residence. At this time he was partially disabled by a nail growing into the flesh of one of the toes on the side operated upon, so as to require the use of two canes in walking. Bony union seemed to have taken place between the femur and tibia. The wound had apparently healed, though at a small spot it occasionally opened and discharged slightly.

The recovery of the use of the limb in this case was quite rapid, and he was out as soon as a patient after an ordinary amputation. The superiority of the single over the double flap, when it can be made, both as regards appearance and position of the wound, need hardly be insisted on.

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[In this connection, Dr. WARREN also communicated the following cases illustrating Dr. Barton's operation for straightening the knee-joint.]

## BARTON'S OPERATION FOR STRAIGHTENING THE KNEE-JOINT BY EXCISION OF A WEDGE-SHAPED BIT OF BONE.

BY J. MASON WARREN, M.D.

THE patient, who is 25 yrs. old, and from Nova Scotia, presented himself to me in September, 1850, on account of a great deformity of his limb, owing to an anchylosis of the knee-joint, the leg being bent at nearly a right angle with the thigh. He stated, that his prospects had been destroyed and his life rendered wretched by his infirmity; and wished, if anything could be done for him short of extreme danger to his life, that it should be attempted.

The history of the case, as given by him, was this. In November, 1841, he fell a distance of three feet, striking the knee. Three days after the fall, the knee began to swell and become painful. This went on for four weeks, when it was punctured, and a pint of watery fluid escaped. It continued to discharge for fifteen months, during which time many small pieces of bone came away. The opening finally healed—leaving the joint and limb in its present distorted position. His hereditary tendencies were scrofulous. In the erect position, resting upon the sound limb, the lame foot is seven and a half inches from the ground, but he can limp about with a high-heeled boot.

I informed the patient that the only operation which suggested itself to me was Barton's operation, which had apparently been already described to him, and at once he requested to have it performed. I advised him to enter the Hospital for the convenience of apparatus, which he did. Some of his friends attempted to deter him from running any risk, but he said he was determined either to undergo the operation, suggested by me, or to have the limb removed, as he could no longer bear the pain and mortification of his condition.

On the second of October, the operation agreed upon was thus performed. A V-shaped incision was made through the skin just above the knee-joint, the base of the triangle, two inches wide, presenting outward, with the apex at the inner side of the limb. The flap was dissected up and the bone exposed, the other textures having become atrophied from disease. A wedge-shaped piece was sawn out of the femur, the incisions not being carried quite through, so as to avoid the artery. The remaining portion of bone was then broken; the flap was secured in its place, and the knee placed on a double inclined plane, and firmly fixed to it. There was no hæmorrhage.

On the following day, the patient said he had passed a restless night, but was free from pain. The limb was dressed on October 7th, and placed on a splint with a hinge and screw, so that it could be extended without any shock to the joint. By the 20th, the limb had been gradually brought to a straight position, and on the 29th the bones had united, and the wound was healed. Some time after this, he had a febrile attack, in the course of which the union became somewhat less firm, and threatened to dissolve; the

system showing its scrofulous tendency. He gradually recovered, however, and left the Hospital.

About a year after his discharge, this gentleman presented himself to me, well. The limb was but very little shorter than the other, and with a pair of large trowsers the difference in the shape of the two limbs could scarcely be distinguished. He walked well with a cane, and the improvement between his present upright appearance in walking and his former painful method of locomotion would have almost prevented him from being recognized as the same individual.

In a recent conversation with Dr. Barton—whose retirement from the profession in which he acquired so much honor is deeply to be regretted—he informed me that when he first began these operations, great danger was apprehended from the supposed interference with joints, or their vicinity. But he at once demonstrated what afterward seemed sufficiently evident, that the delicate structure of the joint had, in these cases, already been destroyed, and that the bones might as readily be interfered with at this point as in their continuity. In some cases greater symmetry may be gained by making the excision directly from the joint rather than above it, as there is then presented a much larger surface of bone. There are also other advantages. I have seen a patient thus operated upon, by Professor Mütter, with the most complete and gratifying success. Dr. Buck, of New York, has also done the operation successfully.

# MEMBRANOUS CROUP.

BY GEORGE H. GAY, M.D.

Communicated to the Boston Society for Medical Improvement, Dec. 13th, 1858.

CASE I.—*Membrane in the larynx, trachea and smaller bronchi; Its absence in back part of the mouth; Tracheotomy; Recovery.*

Charles W., æt. 7, had been troubled with a slight cold for a few days, and at 10, P.M., some difficulty of breathing was noticed for the first time. The next day he coughed but little. At 11, P.M., the difficulty of breathing came on again. On Saturday the cough was so like the barking of a puppy five months old, that was in the room, that the mother could not distinguish them by the sound. At night, the dyspnœa would return about an hour later, and continue for about two hours. Sunday night, he woke his parents up, screaming and saying he was choking. When I saw him, Monday, November 22d, he was playing about the room, without any noisy breathing, but with a hoarse voice and hoarse dry cough. His mother had already given him an emetic two or three times, in the night, with relief to the symptoms. I merely directed some syrup. scillæ and senega, a Dover's powder, and cold water to the throat. There was no inflammation, nor appearance of any membrane in the fauces. The tonsils were somewhat enlarged, but not red. The voice and cough has become less and less hoarse and dry, though the dyspnœa would come on at night. Nitrate of silver was applied to the throat and upper part of the larynx. On Thanksgiving Day, Nov. 25th, the voice was scarcely husky, though the cough was a little hoarse. He passed a pretty good night, and at 8, A.M., Friday, his mother considered him nearly well. At 9, A.M., she noticed that he was not inclined to sit up, but preferred to lie on the bed, and would not eat anything. In a few moments he had a spasmodic, strangling paroxysm of coughing, which was thus described by his mother:—with his mouth wide open and

gasping for breath, he seized hold of his larynx as if to tear something away, then held his hands up high and suddenly jumped over the upper end of the lounge, turned round upon the bed, jumped again on the lounge, stood up, struggling for breath, with his face nearly black. Similar paroxysms came on every twenty or thirty minutes for about two hours. There was then an interval of relief, when they again returned. At 3, P.M., he had another attack; his lips were drawn tight across his teeth, his face was livid, his arms were tossed about, he ran across the room, and then fell, exhausted, upon the bed, with his head drawn back.

At my visit this day, about noon, the serious change in the symptoms was immediately noticed; the cough was then frequent, short, dry and almost extinct; respiration labored, noisy and hoarse, 50 per minute, inspiration and expiration being equally noisy; voice hoarse and whispering; swallowing, not difficult nor painful, but almost constantly excited coughing; no appearance of any membrane in the posterior part of the mouth; tonsils somewhat swollen; submaxillary gland of each side enlarged and prominent since morning; no soreness nor pain about the larynx or trachea; pulse 130; tongue with white coat and red edges; no expectoration.

I proposed a consultation with reference to tracheotomy. I was sent for during the paroxysm at 3, P.M. When I arrived there, the patient had come out of it and was very much exhausted. Drs. Lewis, J. Ware, and Read, were present at the consultation.

*Tracheotomy* at about 4½, P.M., seven or eight hours after the strangling croupy symptoms had come on, the patient being fully etherized.

There was nothing particular about the operation, except that the thyroid isthmus was divided because it was in the way. The hæmorrhage was very slight, and stopped the moment the trachea was opened. The dilator was kept in until the usual coughing and expectoration had subsided. The tube was then inserted and fastened. After a few moments, the respiration became decidedly more quiet and easy. Pulse 120. Directions were then given for a person to be by the bedside all the time, with a sponge or cloth in the hand, to wipe away whatever came out of the tube before it was drawn back, to remove and clean the tube in hot water at least every two hours, and oftener if there was an apparent obstruction; if the obstruction still continued, to remove the other

tube, and with the forceps to take away any membrane that might be seen. A further measure might be then adopted of injecting slowly through the opening of the trachea a mild solution of nit. argenti, or simply water, or of putting a large catheter bougie, with end cut off, into the trachea, and endeavor to remove the obstruction by suction. Afterward resort to pulmonary insufflation, if necessary. It was also directed to inject slowly through the tube into the trachea, every four hours, about one third of a teaspoonful of a twenty-grain solution of the nit. argent., for the double purpose of cauterization and expulsion of the membrane. Dover's powder, gr. iij., to be given p. r. n. Iodid. potass., gr. ij. every two hours. The temperature of the room to be between 70° and 75°, and the air to be moistened with steam; also, two or three layers of folded lace over the opening of the tube, like a cravat. 11, P.M.—Has been very quiet most of the time, and slept somewhat. Pulse 120. Considerable thirst—drinks easy and without producing a cough. The first introduction of nit. argent. caused a free expulsion of viscid mucus and pieces of membrane. Was relieved by it.

Saturday, Nov. 27.—Was pretty comfortable through last night, slept somewhat. Expelled many pieces of membrane through the tube. This morning the countenance is bright, and he makes a motion that there is no pain in the throat or neck. The tube was cleansed every two hours, without any disturbance to the patient. The submaxillary swelling is about the same. Less thirst. The breathing is quiet most of the time. Has expelled more membrane, and it always comes easier after the nit. argent. One piece is thick and very firm, nearly tubular and bifurcated. At noon, some other pieces were expelled from the tube, firm and hollowed, a portion evidently from the small bronchial ramifications. The firmest membrane looks very much like some of the layers in an aneurism. Near noon, the mother thought the nostrils moved, as if air passed through. A very delicate feather placed at the nostril was not the least affected by it. Does not raise anything by the mouth. 6, P.M.—Feels comfortable, and is sitting up in bed, with his paper and pencil. Respiration free and loose in the lungs. Coughs much, and constantly raises membrane and viscid mucus. Large quantities of clear, thin mucus run from the mouth, as when salivated. Throughout the day, the respiration has been generally

easy and without much noise, except just previous to a cough. 10, P.M.—Has slept quietly most of the time since the visit at 6, P.M. Has raised strips of membrane—one, one and a half and two inches long; salivation continues.

Sunday, Nov. 28th.—Had very quiet and easy naps through the night. Raised much membrane, some of the pieces nearly tubular, and of the size of the smaller bronchial ramifications; the mucus is still viscid and dark colored. To-day, is again sitting up in the bed, playing with his paper and pencil. The tongue is much cleaner. Pulse 100. From the efforts he makes to raise, and without success, and from the flapping noise, the membrane is evidently separating in the larynx. Has raised some purulent looking fluid by the mouth. Through the tube, the membrane is still expelled in long, narrow, white pieces, some very firm and thick, tubular in part, and with blood attached to them. There are some loose, flapping râles in right back. There is more discharge through the tube, of a puriform appearance. The wound of the neck has a whiter covering than yesterday. Nit. argent. was freely applied to it. Salivation nearly gone.

Monday, Nov. 29th.—Slept very quietly last night two hours at a time. Expelled membrane and muco-pus through the tube. Tube remained in *nine hours* without changing. This morning, is very comfortable. Makes occasional efforts to raise by the mouth, which produces retching. Appetite good. Pulse 100. Some healthy red granulations are appearing in the wound. Iodid. potass. is taken twice a day. The swelling of the submaxillary gland is subsiding.

Thursday, Dec. 2d.—Has been improving since last report. The tube is changed once or twice in twenty-four hours. Raises a purulent looking discharge, with some granular membrane, like boiled tapioca. Grows stronger daily. Both tubes were removed to-day, as no change was made for eighteen hours. Breathes well through the mouth. Swallows easy. Asks for meat. Bowels regular. Tongue nearly clean. Pulse 90, stronger.

Friday, Dec. 3d.—Has breathed well since the tubes were removed. No membrane now comes away, except in granular masses and mixed with pus. After dinner, expelled some tenacious masses by the mouth, and immediately was able to speak aloud. The voice became more and more distinct, though hoarse. This

morning, he is up and dressed, playing on the lounge. The expectoration is mostly purulent, with small bits of membrane. Breathes easy and without any noise. Wound of neck healthy and contracting.

Saturday, Dec. 11th.—Voice has become stronger. Coughs somewhat, and the expectoration is purulent. The edges of the wound are brought together by plaster, and scarcely any air escapes except during a long cough. Appetite sufficient. Pulse 80 to 90. The hoarseness is not yet gone.

Monday, Dec. 13th.—Is improving in every particular. The cough is less and the voice is not so husky. He suffers a little from two boils at the upper part of the right chest, near the clavicle. Has lost a great deal of flesh since the sickness appeared.

The directions in reference to the patient were at all times faithfully attended to. The tube was frequently cleansed and replaced, without the slightest difficulty or disturbance to the patient.

After the operation there are certainly greater facilities for acting through the opening of the trachea directly upon the disease, even when in the bronchi.

The injection of a solution of nit. argent. (gr. xx. to ℥ i. water), through the tube into the trachea, formed the principal treatment after the operation. In two cases it has had an evident beneficial effect. Up to this time, it will be probably allowed that no internal medicine is known that will stop the *secretion* of the membrane. The local application of the nit. argent. has certainly appeared to come the nearest in producing this effect, particularly after tracheotomy. Its influence, graduated in strength according to circumstances, in other cases, will show its value.

In this patient there seemed to be three different forms of the membrane: the tough, firm pieces looking like some of the layers of an aneurism, or like the calcareous concretions of an artery; the tape-like strips, and the granular or tapioca form.

There were several reddish strips, looking as if organized, not unlike the coat of a vein.

The small hollowed casts of membrane could have come only from a *small bronchus*.

The small bifurcated piece was too small for the tracheal bifurcation, in a child (a boy) æt. 7.

A point of noticeable interest is the fact that at no time was there any sign of membrane in the back part of the mouth. The sudden swelling of both submaxillary glands was certainly not encouraging.

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CASE II.—*Membrane in the nose, back part of the mouth, larynx, trachea and bronchi. Tracheotomy. Recovery.*

Martha L., æt. 11, Roxbury, had had more or less of a cold, with some hoarseness, for two weeks. It was nearly well, when, on the 19th of November, she was suddenly taken with inflammation of the tonsils, after coming home from play. The next day there was so much swelling that the tonsils nearly met on the median line. The voice was thick and nasal. There was no particular difficulty in the breathing, nor cough. At night she snored loudly, and kept her mouth wide open. In a day or two, by report of the mother, the whole of the back part of the mouth was covered with a "*white canker.*" This gradually came away in pieces, and the tonsils and velum palati were nearly free from it, when, on the 24th, in the night, she had a croupy hoarseness. Up to this time there had been no cough. She is naturally of a feeble, scrofulous constitution, and had been much enfeebled by this sickness.

Thanksgiving noon (Nov. 25th), there was decided croupy cough, voice and breathing. She could not speak loud, and the voice afterward was a mere whisper. At night the cough was almost incessant, the respiration labored and noisy. The next day, Friday, the symptoms were generally worse, and at night she raised a small piece of membrane. Saturday morning, she raised another piece of membrane, and at 5, P.M., another piece. The tonsils and fauces generally were again covered with a white membrane. She was comparatively quiet an hour and a half after raising the membrane in the afternoon. The symptoms then returned with increased severity, the breathing was very tight and the voice nearly gone. She passed a very bad night, and on Sunday morning, Nov. 28th, some strangling paroxysms of coughing came on, which nearly exhausted her. The cough was dry. These strangling paroxysms increased in frequency and severity, and at 4, P.M., I saw her, at the request of her family physician, Dr. Jackson, of Roxbury. At that time her countenance looked very distressed

and exhausted, her eyes were staring, her nostrils wide open, and the lips and cheeks were purplish. The cough was frequent, dry, hoarse and very nearly extinct; the voice was a faint, hoarse whisper; the respiration was very labored, but not very hurried, noisy and hoarse, inspiration and expiration being equally noisy. From auscultation nothing could be pronounced upon with confidence. By percussion the resonance was not very marked.

There was, and had been, considerable pain in swallowing of liquids even, and at times an entire inability. Any attempt would excite a choking paroxysm of coughing, which made her face almost black.

The tonsils were swollen, and, with the *uvula*, *velum palati* and *upper part* of the *pharynx*, were covered with *white membrane*. The *nostrils* (mucous membrane) were inflamed, and had *patches of membrane*. The tongue had a thick white coat and red edges. The pulse was 130, and feeble. The larynx was painful to the touch, as was also the upper part of the trachea. There was no glandular swelling of the neck.

It by no means could be considered a favorable case for an operation. The naturally feeble restorative powers of the system, the great constitutional depression attendant on the *re-deposit* of the membrane throughout the fauces and in the nose, the extension of the membrane into the larynx, trachea, and probably the lungs, held out nothing but an unfavorable result if the disease was left any longer to itself. A very prominent indication seemed to be to see if a large opening in the trachea would not allow a more free and permanent passage of air into the lungs than that then existing, and thus relieve a strong asphyxiating cause; then to resort to stimulants, tonics and such other remedial measures as the circumstances of the case might suggest. This would give rest to the larynx, where there was so much danger, and time for the disease, wherever it was, to go through its course to the separation and expulsion of the membrane through the opening in the trachea. With all these complications, it was decided to perform tracheotomy, even though the relief was only temporary.

*Operation* at 4½, P.M., with the assistance of Drs. Lewis, Windship and Jackson, the patient being under the influence of ether.

The irregular distribution and the very large quantity of veins,

and the swelling of the thyroid gland, rendered it necessary to proceed with great caution. The veins were carefully dissected away and held aside by blunt hooks; a tenaculum was then inserted into the trachea to steady it, and four or five rings were divided, with the loss of but very little blood. The dilator was then introduced, and the slit of the trachea was kept wide open until the usual bloody liquid was expelled. The breathing soon became easier, though considerably obstructed. The pulse was very feeble, though less frequent than before the operation. After the administration of stimulants, she gradually revived, and was able to expel many pieces of membrane from the opening still kept free by the dilator. After a few moments' rest, the tube was inserted and fastened. The breathing was much relieved. Instructions were then given respecting stimulants, and the watching and cleansing of the tubes, and the dropping into the trachea, through the tube, every three or four hours, of a small quantity of a twenty-grain solution of nit. argent. A small Dover's powder was to be given according to circumstances, and iodid. potass., gr. ij., every two hours. A gauze cravat and steam were directed, as in the case of the boy.

Monday, Nov. 29th.—Had a more quiet night than was expected. She raised through the tube many pieces of thick membrane, and viscid, glue-like mucus. The first introduction of the nit. argent. caused much coughing, which expelled from the tube, in every direction on the bed, many pieces of membrane. She had some sleep, with but little labored breathing. To-day, she is very nervous and fretful. Pulse 110, feeble. Complains of great soreness over the whole chest, probably owing to the hard breathing and coughing. There is some vesicular respiration in the left lung. The right lung does not sound so well. The respiration is much less hurried than yesterday. The tongue has a thick white coat. There is no further extension of the membrane in the fauces. The nit. argent. was very thoroughly applied to the throat and trachea through the tube. Iodid. potass., gr. ij., was given every two hours; Dover's powder, gr. iij., p. r. n.; wine and water and milk porridge at regular intervals, and cold water if much thirsty. Patient swallows without any difficulty.

Tuesday, Nov. 30th.—Was much more comfortable in the latter part of yesterday and night. Expelled large quantities of thick

membrane and viscid mucus. The tube was removed and cleansed every hour, without any disturbance to the patient. Had a nap of one hour at a time. While the nurse was cleansing the inner tube in the night, the patient out of curiosity removed the other. The father immediately replaced it. The breathing was not very labored during the time that both tubes were out. To-day, appears and looks stronger. Pulse better, 100 to 110. The respiration is much more quiet. Some moist rattles in trachea and lungs. Raises some very thick, hard, firm pieces of membrane through the tube. One of the surfaces in most of the pieces is more or less bloody. The viscid secretion is tinged with yellow. Both tubes were removed, and kept out fifteen minutes. Wound of neck had a whitish membranous deposit upon it. Nit. argent. was freely applied to it. There is but little swelling. The throat looks better. Membrane still on uvula and tonsils. The nose is about the same. Some appetite. Tongue cleaner. While the tubes were out, a piece of membrane was seen hanging from the larynx; could not seize it. Every injection of nit. argent. through the tube expels pieces of membrane.

Wednesday, Dec. 1st.—Was not so well yesterday P.M. Dr. Ware, Sen., went to see her with me, and we found her with more fever than at any time since the operation. The cheeks were flushed, the skin hot and dry, some thirst, and the pulse 130. The respiration was hurried, the cough dry, and the lungs seemed much oppressed. This condition continued till about midnight, when, after an injection of nit. argent., the cough became much looser, and some large, tough lumps of membrane were expelled. She then became easier, and slept more quietly. This morning, she is decidedly more comfortable. Feels hungry. Pulse 120. Has expelled some thick pieces of membrane, some were reddish on one side, looking almost as if organized. One piece had a smooth concave surface, as if a part of a tube; the other surface seemed to be made up of different layers of membrane. There is not much yellow color as yet to anything that is expelled. Tongue moist and cleaning. By the mother's report, at 5, P.M., she had had the most quiet day since the operation. Is still nervous. Throat and nose better.

Thursday, Dec. 2d.—Passed a very good and quiet night. Slept easy for an hour at a time; would wake to expel membrane and

mucus through the tube. At the visit this morning, she is sitting up in the rocking chair, breathing quietly and without effort, and is not so nervous. The wound of the throat is improving in appearance. The tongue is much cleaner. There is some membrane on the end of the uvula; the rest of the back part of the mouth is clean. The pulse 100, much stronger. Complains of pain in her ears. The soreness of the chest is much less. The membrane expelled since yesterday is still in lumps, and stained with blood, but much softer, as if it were decomposing. Some air comes through the mouth, without much effort. The appetite is good, and she asks for beef-steak. She swallows without pain or difficulty, and without exciting any coughing. Has not had any trouble in swallowing since the operation. The countenance and general appearance are good. The treatment has been continued.

Friday, Dec. 3d.—Patient was allowed to sit up again by the attendants in the afternoon, and on account of it was much fatigued at night. She passed the first half of the night less quietly, and the cough was more dry. After midnight the cough was looser, and she expelled a large quantity of lumpy membrane, with some purulent fluid. This morning, she is not so comfortable as she was yesterday morning, though better than she was last evening. Wine-whey or jelly, beef-tea or milk-porridge were given oftener. Pulse 100, rather weak. The breathing is easy, not noisy nor quick, and there are many loose râles throughout the chest. The tongue looks well. No membrane in fauces. Appetite not so good as yesterday. Seems to want strength more than anything else. Has expelled more membrane in the last twenty-four hours than in the twenty-four preceding. It is softer and less firm. There is some that is granular, or looking like boiled tapioca. In the P.M., she was quiet most of the time. Did not sleep any during the day. Some bloody expectoration, as if from the separation of membrane.

Saturday, Dec. 4th.—Had a very comfortable night. Slept more than an hour at a time. This morning, feels better and stronger. Appetite improving. Pulse 100. Breathing easy, slow and very quiet. The cough is very loose. She raises the membrane easily, which is softer, though lumpy, and more yellowish. There is much mucus and pus expelled through the tube.

Sunday, Dec. 5th.—Was easy yesterday and night, sleeping two

hours at a time. Cough was frequent and very loose, expelling pieces of membrane, reddish as if organized. This morning, patient is better. The tongue looks nearly well. Appetite good. Expectoration from the tube and mouth is more purulent. One piece of the membrane probably came from above the tube, as it produced a longer, harder coughing and some gagging.

Monday, Dec. 6th.—Slept very quietly last night; at one time, three hours. To-day, general appearance very much better. Grows stronger daily. Raises less membrane by the tube and mouth. Membrane is softer, yellowish and easily broken down. Purulent secretion free. Breathes very quietly, and without effort. Wound of neck looks very healthy. Interior of mouth and nose without any membrane. *Both tubes removed.*

Tuesday, Dec. 7th.—Was better and easier without the tubes during yesterday. Slept most of the night. To-day, feels generally stronger. Breathes easily, and without noise. Cannot speak aloud as yet. The membrane has become much softer; some of it looks granular, or like boiled tapioca. Most of the expectoration is purulent.

Thursday, Dec. 9th.—Doing very well. Coughs but seldom. Sleeps nearly all night. Wound of neck contracting; edges brought together by adhesive plaster.

Monday, Dec. 13th.—Sits up during most of the day. Grows stronger. There is still some loose cough. The voice is yet a loud whisper.

The great comparative ease and quiet in this patient, and in the boy a short time after the operation, of themselves alone are points of great practical interest as bearing upon the propriety of the operation of tracheotomy. Without the operation, the result, in a few hours, would undoubtedly have been fatal to both.

The marked peculiarity in this patient was a condition of the system favorable to the re-formation of membrane, and its appearance in the nose, throat, larynx, trachea, bronchi, and wound of the neck. Another peculiarity was the expulsion of the membrane in large *lumps* and in very great quantities. Some of the lumps were very firm, and looked as if there were successive layers; others looked as if they were rolled up previous to the expulsion. There was the same reddish look as if organized, as in pieces raised from the boy. It was not merely blood upon the surface

which could be wiped away, but the red portion had some thickness, and looked like the coat of a vein.

At no time has there been a symptom of pneumonia in either case.

In *six* cases operated upon by myself within about twelve months, *four* have recovered: in one, there was pleurisy, pneumonia and erysipelas *after* the operation; in another, the croup came on after an attack of mumps, and membrane was deposited on a blistered surface; in another, there was no membrane in the throat, but in the larynx, trachea and bronchi; in another, there was a general constitutional infection, with membrane in the nose, throat, larynx, trachea and bronchi.

There are recorded cases of recovery after tracheotomy for membranous croup, where scarlet fever, measles, whooping cough and erysipelas have complicated the trouble, either before or after the operation; also after a general diphtheritic infection, with this membrane extending into the bronchi, and also after pneumonia. These of themselves add more danger to a case, but are not necessarily fatal complications. The strongest contra-indication to an operation seems to be the presence of double pneumonia.

An allusion was made, in the report of the two cases last winter before the Society, to the difference in the successful result of early over late operations for strangulated hernia. It was also remarked that time would show whether an earlier period of performing the operation of tracheotomy for membranous croup than has been customary, may not be followed by as successful results.

It is an important and very significant fact, that until within about a year there has been no recorded case, in any part of this locality, of recovery after tracheotomy for genuine membranous croup. The difference certainly cannot be attributed to the operation, for that was hitherto performed as at present. It must be now allowed, we think, that the constant fatality was mainly attributable to the late period of the operation, resorting to it merely as a *dernier ressort*, and not as one of the means of treatment. It is true that a tubular membrane has been raised in some desperate cases, and recovery has followed without an operation. But the number of such successful issues is so vastly disproportionate to the deaths, that it is altogether too desperate a risk for a patient to incur.

The proper time for an operation seems to be, not when the patient is pretty well, nor when nearly dead, but an intermediate or medium time, when the evident croupy symptoms are increasing in severity, unrelieved, and when there is a decided presence of membrane in the larynx.

Still, operate even when the patient seems moribund, although the chance of success will not be great.

# THREE CASES OF MEMBRANOUS CROUP.

BY HENRY G. CLARK, M. D.

Communicated to the Boston Society for Medical Improvement, Dec. 13th, 1858.

CASE I.—Oct. 27th, W. W., a stout healthy boy, 7 1-2 years of age, after exposure to wet and cold, was attacked with angina and slight feverishness, which subsided the next day, leaving only a little hoarseness. Early on the morning of the 30th, the cough of croup appeared, and during the forenoon was followed by obstructed respiration. Dr. E. D. G. Palmer, whose patient he was, first saw him on the morning of the 31st, when all the previously existing symptoms had increased, and an abundant deposit of false membrane was observed about the palate and tonsils. He applied a wash of nitrate of silver to the throat, prescribed some powders of ipecac and opium, and directed the vapor of hot water to be kept constantly in the apartment.

I visited him at 9 P. M. of the same day, at the request of Dr. Palmer, at which time the appearances were so alarming, that at first sight tracheotomy apparently offered the only means of saving him from immediate suffocation. He was purple, agitated, with a rapid pulse, a moist and cool skin, dilated nostrils, and much dragging of the larynx at each attempted respiration. There was aphonia, scarcely any cough, and the respiratory murmur was hardly perceptible in either lung. Lymph was still visible on both tonsils and about the epiglottis. It was decided, after preparing to operate, and before proceeding to do so, to make a thorough trial of the effect of the introduction of a solution of the nitrate of silver, with the probang, into the larynx, and then to go on at once with the operation, if he was not essentially relieved by the sponging.

He was firmly held, the head of a good sized clothes-pin placed as a gag between the back teeth of the left side, and the sponge,

guided by the fore-finger of the left hand, fairly passed into and *through* the larynx. It came out loaded with false membrane. The immediate and violently spasmodic effects of the proceeding having been moderated by the inhalation of ether, the relief of all the symptoms was so decided as to render any further active interference for the present unnecessary. An hour later, he was breathing more easily, with some flapping of the membrane, a stronger and more effective cough, and an occasional expectoration of bits of membrane. He was ordered brandy and water and beef-tea, *ad libitum*, and permitted to take any other light food which he chose. The quantity of brandy taken for the next twenty-four hours was something over a pint, or about one ounce every hour and a half. The Dover's powders and the steam were continued for three days. He continued to improve slowly, and was about the room, feeling pretty well, in ten days.

Case II.—Nov. 15th, I saw in Cambridge street, by invitation of Dr. George Bartlett, a delicate little girl, two years of age, with well-developed croup, of an entirely distinct character, but of rather moderate intensity. The lymph was apparent about the fauces, the breathing was stridulous, and the cough dry. The treatment consisted of the local use of the nitrate of silver, Dover's powder, steam, &c., and wine-whey. The child had a good recovery.

Case III.—Nov. 25th, W. G., a very healthy boy, two years and four months old, who had two days before arrived in a neighboring town from Michigan, was taken ill with sore throat and hoarseness. On the Sunday following, the 28th, early, he began to have a noisy, croupy cough, and, the next midnight, had croupy breathing. Previously to my being called to see him, the next noon, he had got an emetic with temporary relief, had his throat sponged with caustic, and was placed in an atmosphere charged with steam. The tonsils, and indeed the whole of the parts about the entrance to the larynx, were heavily coated with the diphtheritic effusion. The breathing was dry, stridulous and labored, but the voice was pretty good, especially after a paroxysm of coughing.

His throat was thoroughly sponged with the solution of the nitrate of silver (40 grs. to one oz. of water), and he was directed two grains of Dover's powder every two hours; the steam to be continued and the temperature of the room maintained at from 72° *to* 74°. Brandy and water, and liquid nourishment, freely.

Dec. 1st, 9 A. M. All the symptoms aggravated. Pulse from 140 to 150; respirations 50 in the minute, with an occasional flapping sound, especially during cough; color and complexion pretty good. Patient had made frequent and ineffectual attempts at micturition. When passed, the urine was very small in quantity, and cloudy. It had not been preserved.

At this visit, a solution of the nitrate of silver was injected quite into the larynx, with the Warren syringe. This was followed by an alarming suffocative struggle, but with occasional, apparent, partial dislodgement of the matter blockading the air-passages, affording some relief to the voice and respiration, but with great exhaustion of the strength.

In the evening his appearance was much worse, and he seemed to be sinking. Pulse 160 to 170. Respirations at least 60, and very little air making its way into the chest.

It being apparent that tracheotomy offered the only hope, even of prolonging life, and Drs. G. H. Gay, and Moses Clarke of Cambridge, concurring with me, the operation was at once proceeded with. The little patient was much alarmed, and struggled violently during the attempt to etherize him, and altogether seemed in such immediate and imminent danger from his efforts alone, that I went on without having him so quiet as would have been agreeable. No blood of any consequence was lost, the veins overlying the trachea being carefully drawn aside. The rush of air into and out of the trachea, upon its penetration, resembled that of an overcharged and leaking champagne bottle. The incision was kept patent by the dilator, until the breathing became a little quiet, when the double canula was inserted and fixed in its place, to the complete and instant relief of all the symptoms.

The little fellow was much exhausted, but soon rallied, and took his brandy and water with great satisfaction. The pulse fell to 140, and he soon went off into a quiet sleep. On examination with the ear, the air was found to be pouring freely, with some râles, to all parts of the lungs. Respirations 56.

Dec. 2d.—The patient has had a good night. Pulse 136. Respirations 45 to 50. The inner canula has been several times removed and cleansed, and a solution of the nitrate of silver poured through it into the trachea. Treatment to be continued.

Nine, P. M.—Patient had, this evening, an eruption on various

parts of the body, closely resembling that of commencing scarlatina, of which, however, there are no other symptoms.

3d.—Patient had been rather restless, and annoyed by the itching of the eruption, which is to-day very bright, and extends over the whole body. His breathing and other symptoms improved. Pulse 130. Respirations 44.

From this time he gradually improved until Dec. 8th, when both canulæ were removed. He had quite an uncomfortable paroxysm of coughing and crying, but in the course of an hour had recovered his voice very well. His breathing, however, was not quite satisfactory, and on the evening of the 11th, it being considerably obstructed, the tubes were again replaced.

13th.—He is, to-day, apparently quite convalescent—eating, breathing and sleeping well, and playing about his chamber. Pulse 120. Tongue and throat clean.

Dr. Bacon was kind enough to examine the first urine I was able to obtain for that purpose, and he reports to me "no albumen." Very possibly it might have been found at an earlier period. The eruption disappeared in about forty-eight hours, and I suppose may be accounted for by the natural reaction of the skin, after so long-continued local asphyxia. Possibly the ether may have had something to do with it. Dr. John Ware saw the patient twice at this period, and expressed the same opinion as to its nature.

In each of these cases, as well as in several others which I have had, I am sure that the administration of stimulants and nourishment has had a most favorable influence in rallying and preserving the flagging vital forces, and I should never omit to direct them.

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